

Solving Water Challenges in Disadvantaged Communities:
A Handbook to Understanding the Issues in California and
Best Practices for Engagement



WATER EDUCATION
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Solving Water Challenges in Disadvantaged Communities: A Handbook to Understanding the Issues in California and Best Practices for Engagement is prepared and distributed by the Water Education Foundation as a public information tool.



This handbook is financed by a grant under the Water Quality, Supply and Infrastructure Improvement Act of 2014 (Proposition 1), administered by State of California, Department of Water Resources. The handbook was prepared under an agreement with the Santa Ana Watershed Project Authority.

The mission of the Water Education Foundation, an impartial nonprofit, is to inspire understanding of water and catalyze critical conversations to build bridges and inform collaborative decision-making. For more information contact:

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- San Diego River Park Foundation
- Santa Ana Watershed Project Authority
- Self-Help Enterprises
- Sierra Institute For Community And Environment
- Valley Public Radio
- Valley Voice
- Water Education Foundation



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ISBN: 978-1-61948-023-0



INTRODUCTION

An estimated 1 million Californians, living in economically stressed pockets of the state, face daunting challenges in obtaining clean and affordable water to drink, addressing sanitation or stormwater needs, and gaining the help to do so. Across the state, efforts are underway to provide help. The goal is to do so in a way that allows members of disadvantaged communities to express their needs and wants, set priorities and obtain the technical assistance necessary to begin to solve their challenges.

The task is daunting. Disadvantaged communities throughout the state face major issues with their water systems, most of which were installed decades ago and may not have been regularly upgraded. In some cases, groundwater is tainted with contaminants that are expensive to remove for drinking water treatment as health standards become more stringent. Other times, wells have run dry and drilling new ones or tying into neighboring water supplies is prohibitively expensive.

California's efforts to address the water resource needs of disadvantaged communities have evolved over time as the realization emerged that there was a growing gap between the activities of the traditional water community and the needs of people living in disadvantaged and economically distressed communities.

AB 685, California's landmark human right to water law passed in 2012, emphasized the needs of people living in disadvantaged communities. After the passage of Proposition 1 in 2014 — and as a result of several studies, pilot projects and other efforts — Integrated Regional Water Management (IRWM) partners in 12 funding areas across California's 48 IRWM regions were tasked with effectively engaging members of disadvantaged communities to assess their drinking water, wastewater treatment and flood management needs and wants, and to begin providing effective assistance to meet those needs.



Ensuring access to clean and reliable drinking water is a focus of the Prop. 1 Disadvantaged Community Involvement Program.



The state, recognizing some of the broader needs of these communities, is taking action. Among his first actions as governor, Gavin Newsom visited Fresno County Feb. 13, 2019 and signed legislation providing emergency funds for safe drinking water. That summer, he signed SB 200, the Safe and Affordable Drinking Water Fund Act, which provides \$130 million annually for 10 years to clean up drinking water in disadvantaged communities.

However more needs to be done. California’s 2020 Water Resilience Portfolio draft notes that the state must prioritize securing adequate water supplies for an uncertain future and start fulfilling the human right to water for those Californians who currently lack safe drinking water supplies, especially those living in isolated, rural communities reliant on groundwater and not linked to neighboring water supplies. Those communities dependent on groundwater (in many cases private wells) are vulnerable to water contamination and drought. “This water insecurity continues to plague rural communities,” according to the Portfolio.

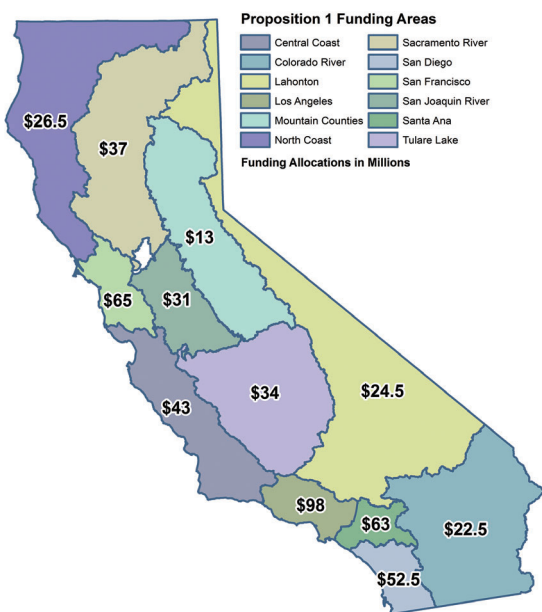
The importance of regular access to hot and cold running water was further highlighted in 2020 by the COVID-19 pandemic. Among its preventative measures is frequent hand washing with soap.

Several state and local government agencies have programs that address the needs (water and otherwise) of disadvantaged communities, including the California Energy Commission and the California Public Utilities Commission. For drinking water, the California Department of Water Resources (DWR), the State Water Resources Control Board (SWRCB) and the California Office of Environmental Health Hazard Assessment have ongoing processes to better understand the needs of drinking water systems and rural communities reliant on private domestic groundwater wells. These programs were primarily created in response to the hardships endured from the last major drought in California (2012-2016), the passage of the Human Right to Water Law (AB 685) in 2012, Gov. Jerry Brown’s Drought Emergency Proclamation in 2014 and the Governor’s Interagency Drought Task Force established in 2014.

The continuation of the State agencies’ programs is championed by Gov. Gavin Newsom, with several significant activities occurring during his first term. In July 2019, SB 200 established the Safe and Affordable Drinking Water Fund. That provides \$130 million annually to the SWRCB and led to the creation of the Safe and Affordable Funding for Equity and Resilience (SAFER) program, which is working with a public advisory group to establish tools, funding sources and regulatory authorities to meet the goals of safe, accessible and affordable drinking water for all Californians. That program builds on previous SWRCB programs to conduct needs assessments and provide technical assistance to communities without access to safe drinking water. Also in 2019, DWR convened an advisory group to develop recommendations for the Legislature (pending finalization at the time of this printing) to ensure more small systems and rural communities

would be covered with drought preparedness plans. To help support needed capacity-building at the local level, the group developed a tool for small water systems and rural communities to better understand and plan for their risks of water shortage and drought. The DWR Prop. 1 IRWM Disadvantaged Communities Involvement Program initiated in 2017 provided almost \$52 million in funding to California regions to conduct needs assessments to identify and address water management issues (including drinking water), and provide technical assistance to build capacity and develop projects to ready them to apply for funding.

In Southern California, the Santa Ana Watershed Project Authority (SAWPA) has been at the forefront of disadvantaged community engagement. SAWPA facilitated two symposia on homelessness and water management in 2017 and designed a comprehensive plan of outreach and engagement to build an improved relationship between water providers and the 6 million people living within the Santa Ana River watershed. A key element in SAWPA’s approach is



Prop. 1 grant funds are distributed in 12 funding areas.




a first-of-its-kind ethnographic study, conducted in partnership with the University of California, Irvine, and others, which seeks to explain how water is thought of, used and conserved. Researchers conducted listening sessions with residents (including members of disadvantaged/underrepresented communities), community leaders and elected officials about their relationship with water.

In addition to the University of California, Irvine Department of Anthropology and the Newkirk Center for Science and Society, the ethnography project was produced through the efforts of Civic Spark, California State University, San Bernardino, California State University, Fullerton, California State University Water Resources and Policy Initiatives, Local Government Commission and California Rural Water Association.

How to Use This Handbook

Solving Water Challenges in Disadvantaged Communities: A Handbook to Understanding the Issues in California and Best Practices for Engagement is intended as a resource for anyone in, or involved with, communities throughout the state that have historically struggled to make their water resource needs known to agencies with the ability to help.

This handbook offers useful background as well as advice from people and agencies that have been engaged in seeking out members of disadvantaged communities and Native American Tribes and have helped them have their voices heard and their needs addressed, whether for access to clean drinking water, sanitation or flood protection. In this handbook, you will find:

-  Background on the diversity of water challenges faced by disadvantaged communities throughout California.
-  An overview of efforts to better engage and collaborate with members of those communities to learn what they want and need in order to improve their water quality, supply, sanitation and other water resource needs.
-  Profiles on specific areas across the state – urban, rural and mountain among them – and advice distilled from the experiences of those involved in engagement efforts, which readers can apply to their specific circumstances.

Integrated Regional Water Management

Since the passage of the Integrated Regional Water Management Planning Act (SB 1672) in 2002, 48 IRWM regions have been formed in California. Collectively, these regions cover about 87 percent of the state's geographic area and 99 percent of the population.

Integrated Regional Water Management reflects a regional self-reliance to meet water supply needs and the recognition that regional water assets are necessary to reduce the need for water conveyed over long distances. It embraces all constituencies, including those that traditionally have been outside of the water planning and policy process. IRWM stresses that water resources are usually not confined to simple boundaries that fall under the jurisdiction of a single management agency. Instead, water resources often flow across regions and in turn require a consensus-based, cross-jurisdictional, regional approach. Along the way, water purveyors, planners, landowners, stakeholders (such as disadvantaged communities), and others become involved and are integral to IRWM planning.

CHAPTER ONE: BACKGROUND

Most Californians enjoy access to safe, reliable and affordable drinking water. However, that is not the case in some parts of the state that have long struggled to receive the water services many people take for granted. These can be tiny rural farm communities with groundwater wells contaminated by nitrates from farming, dairy operations or septic systems; urban pockets saddled with aging water mains, sewer lines or other infrastructure; isolated mountain enclaves getting by with limited economic opportunities; or Tribal communities that lack adequate home plumbing or other water resources.

These inadequacies reflect the wide gap between income earners in California. According to the Public Policy Institute of California, while the state's economy outperforms the nation's, its level of income inequality exceeds that of all but five states. Families at the top of the income distribution in California have 12.3 times the income of families at the bottom.

Disadvantaged communities struggle with poverty, high unemployment, air and water pollution and high rates of asthma and heart disease. Their water resource challenges can include access to adequate sanitation or protection from flooding. Furthermore, they tend to be underrepresented in policymaking and decision-making.

While the image of a disadvantaged community might bring to mind isolated tracts in sparsely populated areas such as the San Joaquin Valley or the North Coast of California, many are located in urban areas, including portions of the San Francisco Bay Area and Southern California.

Within the Santa Ana River watershed, for example, about 69 percent of the cities and communities are considered disadvantaged or contain disadvantaged tracts.

In urban areas, while residents may have access to safe drinking water, they often deal with matters such as aged piping in their homes and schools or cross-contamination from non-drinkable water or other substances, which are not always related to water utility compliance issues.

The water resource challenges these people face are not small: As of June 2019, nearly a million Californians were served by water utilities and domestic wells that were out of compliance with water quality standards under the Safe Drinking Water Act, according to the state's Human Right to Water Portal. Among those faced with unsafe water are students at schools that have drinking water contaminated by nitrates, arsenic and hexavalent chromium.

Watch Those Labels

Although a community may be classified as disadvantaged by a policy that relies on metrics like median household income, community members can be sensitive about being described that way. There is often a sense of community pride for overcoming challenges and being resilient despite inequities. A community that lacks the financial, technical and other means needed to upgrade its water services is likely eager and entirely able — once provided support — to envision, plan, implement and operate an improved water system.

Rural communities dependent on groundwater are vulnerable to water contamination and drought. This East Porterville neighborhood relied on temporary water tanks until they could connect to the city of Porterville's water system.



Among the water resource challenges for disadvantaged communities is flood management.



"We still cannot guarantee safe drinking water to all Californians," Susana De Anda, cofounder and co-executive director of the Community Water Center in Visalia, told lawmakers at a February 2019 legislative hearing in Sacramento. "That is not OK."

Struggling with Multiple Challenges

Disadvantaged communities often struggle with multiple water-related challenges, including water contamination, failing or dry wells, insufficient streamflow and failing infrastructure for water delivery, sanitary sewage treatment and flood control.

Small water agencies and community water systems that serve members of disadvantaged communities often lack the technical, managerial and financial capacity to effectively run and support facilities needed for safe drinking water, sewer service and flood protection. Some of these communities cannot afford to hire a system manager, so the responsibilities fall to a volunteer board or an administrative staff member who lacks proper training and experience. Staff turnover, technical deficiencies and ineffective management can result. With a smaller, financially insecure customer base, systems serving disadvantaged communities often lack the financial capacity to bear the costs of running an updated, technically sound water or sewer system. The isolation of some communities makes it infeasible to seek help from or share resources with larger water systems that have more secure access to clean, affordable water.

Even when larger systems are nearby, there can be inherent mistrust that larger governmental agencies are seeking to take over or consolidate small water systems in disadvantaged communities. There can be communication issues (such as assuming community members have email or failing to ensure communication is translated to a native language they can understand).

For the small water systems of many disadvantaged communities, local operators often know the project they need, but may be unaware of the necessary engineering, permitting and other pre-planning needed to get it built. While some system operators and managers are aware of available funding sources, they may lack the technical expertise to apply for it.

Investments in Communities

In 2014, California voters passed Proposition 1, a \$7.5 billion bond to fund investments in water storage, watershed improvements, drought preparedness and other water resources needs. The bond included money to help disadvantaged communities with safe drinking water, wastewater and stormwater management projects. It required grant recipients to listen to and encourage the participation of the communities directly affected by those projects

to ensure they have a voice in determining priorities. Included are California's Native American Tribes, non-English speaking communities and dispersed rural populations that are often poorly informed about or excluded from water management decisions.

California has previously earmarked money to aid disadvantaged communities. Proposition 84 (approved by voters in 2006) required no less than \$3.9 million in IRWM planning grants to support proposals that facilitate the participation of disadvantaged communities. Additionally, \$35 million in implementation funding was set aside to support projects that met critical water supply or water quality needs.

Through four rounds of Proposition 84 implementation grant solicitations, the Department of Water Resources awarded about \$107 million to fund 106 projects to meet the critical water supply or water quality needs of disadvantaged communities.

Monies from Proposition 84 helped fund several pilot projects to learn more about how to effectively engage members of disadvantaged communities, how to build relationships and how to assist disadvantaged communities to identify and prioritize needs. Strategies road-tested through Proposition 84 pilot projects and now being used by Proposition 1 IRWM grant recipients include surveys, letters, phone calls, flyers, door hangers, community workshops and in-person meetings to build trust and relationships and talk with people about their water resource needs. Those grant recipients are now facing the new challenge of creating virtual engagement strategies due to the COVID-19 pandemic.

An example of the water challenges of struggling communities in California was highlighted in 2011, when a United Nations investigator visited the Tulare County community of Seville during a worldwide tour of places with substandard drinking water. The inspector found decrepit plumbing and public neglect during the highly publicized visit intended, in part, to support the human right to water. The following year, in 2012, California lawmakers passed, and Gov. Jerry Brown signed, the so-called human right to water law, which established as policy that every person in the state has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking and sanitation. In doing so, California became the first state in the nation to make the human right to water official state policy.

Defining Disadvantaged Communities

Disadvantaged communities are defined by the California Public Resources Code as communities having a median annual household income of less than 80 percent of the statewide average. California's median household income was \$63,783, according to the Census Bureau's 2012-2016 American Community Survey, the guideline currently used by the Department of Water Resources (DWR). That translates to a threshold of \$51,026 for disadvantaged community households.

In **severely disadvantaged communities**, the benchmark is below 60 percent of the statewide annual income figure, or \$38,270.

An **economically distressed area**, as defined by Proposition 1, is a municipality with a population of 20,000 persons or less, a rural county, or a reasonably isolated and divisible segment of a larger municipality with an annual median household income of less than 85 percent of the statewide median household income, or \$54,216.

An **under-represented community** can be a group of people that has a history of disproportionately less representation in water policy and projects. The definition of who is an under-represented community is left to the funding areas in the Disadvantaged Community Involvement Program.

CHAPTER TWO: CHALLENGES

Where are “disadvantaged” communities?

California is a state of economic extremes – areas of extreme wealth and extreme poverty. The economic disparities can be stark. Fresno County, for example, generates billions of dollars in agricultural production but has one of the highest poverty rates in the state. Napa County has a poverty rate of 5.2 percent; next door in Lake County, the poverty rate is three times that.

In each of California’s 58 counties, there are economically disadvantaged communities struggling to access clean water. These communities span the gamut, from remote hamlets and mobile home parks to urban neighborhoods abutting more affluent areas. In many cases, they rely predominantly on groundwater for their household supply. They face many barriers to accessing clean water and adequate wastewater disposal, such as failing infrastructure, isolation, language and cultural differences and lack of funding and resources.

In California, disadvantaged communities often are identified with the rural farmworker communities in the San Joaquin Valley, the 10,000-square-mile, eight-county region that extends 250 miles from Stockton to Bakersfield. The region is marked in many places by a patchwork of small water systems, often with inadequate physical and operational infrastructure, which results in uneven access to water that is free of contaminants and safe to drink. Because of the lower income levels generally found in the San Joaquin Valley, most communities in the region meet the definition of a disadvantaged community. Still, there are significant differences in capacity, water supply and infrastructure need between areas such as urban Fresno, which has more than 500,000 residents, and small, severely disadvantaged communities with just a handful of people, such as a mobile home park or community services district.



Many residents of disadvantaged communities live in urban areas, including parts of Southern California.

Treating contaminated groundwater used as a drinking water source is challenging for many valley communities because of the extent of contaminants such as nitrates and the expense of constructing and operating water treatment facilities. In some cases, communities are dealing with high levels of arsenic, a carcinogen that occurs naturally in soil.

Tap water in the Fresno County community of Lanare, southwest of Fresno, was tainted with unsafe levels of arsenic. An arsenic treatment plant was built with grant funding in 2006, but the plant is inoperative because the small community's low-income residents could not afford ongoing operation and maintenance costs. Help arrived in 2019 with a \$3.8 million state grant that paid for two new drinking water wells.



Many residents of disadvantaged communities are forced to use expensive bottled water.

The North Coast (including the counties of Del Norte, Humboldt, Trinity, Mendocino and much of Siskiyou, Modoc and Sonoma) is a 19,000 square-mile area comprising 12 percent of California's landscape. It contains some of the most economically disadvantaged communities in the state, many of them classified as severely disadvantaged based on income. The rural isolation is one of the major challenges, as are outdated infrastructure and the ability of communities to maintain and operate water systems amid economies that have lost their traditional base of logging and fishing.

The Sierra Nevada includes all or part of 22 counties and covers 25 million acres. While recreation, tourism and working landscapes remain important elements of local economies, many communities are struggling with economic diversification and job creation, according to the Sierra Nevada Conservancy. Based on measures like median household income and a comprehensive assessment by the Sierra Institute for Community and Environment that used multi-item socioeconomic scale and measurement of community capacity, a large portion of the Sierra Nevada is considered disadvantaged.

Tribal involvement with the state to address water needs is an evolving process. Long-standing mistrust between Tribes and the state and federal governments can hinder engagement and slow the pace and scale of progress. Still, some Tribes are actively working with the state and their local regions to address their water resource needs through the IRWM program, such as those in the North Coast and San Diego regions, among others. [SEE PROFILE ON TRIBAL ENGAGEMENT, PAGE 36]

Disadvantaged communities exist in the state's urban centers as well, where income disparity and aging infrastructure often mean some enclaves struggle for safe and reliable water services.

More than 10 million people, about one-quarter of all Californians, live in the Los Angeles funding area defined by Proposition 1, which encompasses much of Los Angeles and Ventura counties. The estimated median household income for this area is \$73,149 per year in 2020. But that figure masks the wide disparity in disadvantage within this funding area. In the Los Angeles metropolitan area, about 40 percent of residents live in a disadvantaged community census tract. In the Ventura County area, almost 12 percent of residents live in neighborhoods that fit that definition. And in a portion of Los Angeles County that includes Santa Clarita and unincorporated tracts, only about 9 percent fall within the definition of disadvantaged.

The Santa Ana River watershed, which covers approximately 2,840 square miles and parts of four counties in Southern California (western Riverside and San Bernardino counties, the northern part of Orange County and a sliver of Los Angeles County), is home to about 6 million residents. The estimated 2020 annual median household income for this region is \$79,645. Within the Santa Ana River watershed, 1.7 million people – nearly one in three – meet the state’s economically “disadvantaged” category. Some residents experience “structural inequality,” such as ongoing exclusion from water access and delivery planning, according to SAWPA’s Community Water Experiences, an ethnographic strength and needs assessment.

The San Francisco Bay Area region covers 10 counties, with an estimated population of 6.9 million people, making it the second largest metropolitan region in California. About half of the region’s population is located in Santa Clara and Alameda counties. In the Bay Area, the estimated median household income is about \$116,000 per year in 2020. But median household income is an incomplete measure when mapping disadvantaged communities because development patterns have placed high-income neighborhoods near low-income neighborhoods in a way that can mask the presence of a disadvantaged neighborhood.

Challenge: Contaminated Water Supply

An estimated 1 million Californians are served by water systems with unsafe drinking water, according to the State Water Resources Control Board. Past land-use practices are responsible in many cases, as chemicals from agricultural and industrial activities seeped into the ground and contaminated groundwater. Antiquated water treatment and delivery systems exacerbate the problem.

In many of these communities, people often buy bottled or filtered water to avoid drinking tap water containing excessive amounts of pollutants, including arsenic, nitrates and uranium.

About 90 percent of the affected water systems distribute water to fewer than 3,300 people each; most are very small, serving fewer than 500 service connections, according to the State Water Resources Control Board. Some small communities also face water shortages because of the need to drill new wells.

Solutions are financially out of reach for many poor communities, which lack resources and economies of scale to pay for expensive new treatment and supply facilities. This is true in groundwater-dependent areas where drilling a new well can cost hundreds of thousands of dollars. In the Tulare County community of East Porterville, problems became drastic during the 2012 to 2016 drought. Domestic wells dried up, leaving families dependent on bottled water deliveries or portable water tanks for their supply.



Groundwater contaminated with nitrates and other pollutants is an acute problem in many of California’s farming regions.



California has about 165,000 indigenous farmworkers and their families.

Eventually, more than 700 homes in East Porterville were connected with the nearby city of Porterville's water supply. The effort was accomplished through the coordinated efforts of the Department of Water Resources, the State Water Board, the Governor's Office of Emergency Services, Tulare County and the community advocacy organizations Self-Help Enterprises and Community Water Center.

Because so many disadvantaged communities rely on groundwater as a primary source of drinking water, some face problems from industrial contaminants like degreasing solvents, such as trichloroethylene and perchloroethylene, as well as perchlorate.

A legacy of space/defense industry activities in California and also used in fireworks, perchlorate is a rocket fuel ingredient that has contaminated large swaths of groundwater. It can disrupt the thyroid gland's production of hormones essential to prenatal and postnatal development and body metabolism, according to the U.S. Environmental Protection Agency.

Perchlorate contamination exists in groundwater in the Santa Ana River Watershed, the result of past aerospace industry activities, the manufacturing of pyrotechnics, past banking of water imported from the Colorado River and imported chemical fertilizers.

An emerging water quality issue is perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) — chemicals that are prevalent in the environment and were once commonly used in many consumer products. They are part of a larger group referred to as per- and polyfluoroalkyl substances (PFAS).

Groundwater contaminated with nitrates and other pollutants is an acute problem in many of California's farming regions. In Tulare County, for example, testing of domestic wells by the State Water Resources Control Board has found that as many as 40 percent of those tested had nitrate levels exceeding the state standard of 10 parts per million. The nitrate problem stems in large part from confined animal feeding operations, septic systems and more than 50 years of spreading fertilizers on the nation's most productive farmland. In the Santa Ana River watershed, nitrate contamination resulted from concentrated dairy operations in the Chino Basin. High levels of nitrate in drinking water can be harmful to human health, particularly for infants.

Challenge: Affordable Water

One of the challenges for small water systems is paying for and maintaining new treatment facilities that help provide safe, clean water. Grant funding and loans from the state exist to build new treatment plants, but grants are not available for annual operation and maintenance costs. For many small, disadvantaged communities, this is a substantial financial burden because treatment plants generally are expensive to operate and maintain. If the new operation and maintenance costs are inadequately funded, the water system runs the risk of improperly operating its treatment plant and delivering unsafe drinking water to its customers.

Many residents of disadvantaged communities pay high costs for water they can't even use. Instead, they are forced to use expensive bottled water (in some cases provided by the state) for drinking and cooking. Water-related expenses for many members of disadvantaged communities in the San Joaquin Valley claim a disproportionate share of the household income.

The State Water Resources Control Board calculates water as affordable when it consumes no more than 1.5 percent of median household income. However, in parts of the San Joaquin Valley, that figure is as high as 4 percent. Water rates can reach \$150 per month in areas with a \$28,000 median annual household income, due to costs of nitrate treatment. The expense of running treatment and distribution facilities is a hindrance for small water systems, defined as those with 200 or fewer connections. It's a simple matter of numbers — rates cannot be raised to a level that supports ongoing operation and maintenance costs.

The COVID-19 pandemic has added to serious water affordability issues. Unemployed residents in some disadvantaged communities cannot afford to pay their water bills, cutting off the revenue stream for small water systems, which already operate on shoestring budgets. Some managers of small community water systems worry they could become financially insolvent without emergency funding from the state.

The State Water Resources Control Board is working to identify the best ways to address the emerging challenges posed by the pandemic and is engaging with communities and struggling water systems to figure out the proper steps to ensure everyone has access to safe drinking water.

Challenge: Lack of Capacity

Disadvantaged communities typically have had a difficult time bringing improvement projects forward. That's largely because significant preliminary work — feasibility studies, design, engineering and environmental review — is required before a project can compete for construction funding.

The application for planning and construction funds can be a complex, multiyear process. In many cases, these water systems are run by volunteers who also have full-time jobs. These systems often lack the capacity to complete complex, technical grant applications or to manage government grants, which require transparency, documentation and accountability. Frequent turnover of staff and board members can hinder the continuity needed to pursue grant-funded projects to the end. Disadvantaged communities generally do not have the funds to hire professional consultants who are familiar with the grant application process. As a result, the communities most in need of grant funding often are the least equipped to secure those funds.

To address that need, IRWM regions such as the Santa Ana region have used a portion of their Proposition 1 funding to pay for necessary upfront work so disadvantaged communities can apply for implementation funding. In SAWPA's case, funds have been approved for technical assistance for many projects throughout the watershed and target the opportunities and challenges outlined in the Community Water Ethnography Report and the One Water, One Watershed document. Among the projects are those addressing wastewater treatment improvements, pipeline replacement and reservoir storage upgrades.

Challenge: Connecting to a Larger System

The geographic isolation of some disadvantaged communities makes it difficult for them to connect to larger distribution systems to access clean, affordable water. In some instances, rural communities are miles away from the nearest connection to a neighboring water system. This, in turn, can make the situation problematic because linking a small disadvantaged community of 20 connections with the next community of 20 connections can be cost-prohibitive, considering the expense of pipe installation. Even connecting a small disadvantaged community to a larger city can cost too much when the city faces similar financial constraints.

The State Water Resources Control Board requires water systems that consistently fail to provide safe drinking water to consolidate with, or receive an extension of service from, another public water system. Consolidation can occur physically, by extending service connections to these communities, or administratively, by sharing managerial resources. Both approaches can improve the reliability and quality of water in a cost-effective, long-term manner. A 2015 law gives the State Water Resources Control Board authority to mandate mergers if necessary.

The merger process involves first providing technical assistance through the state to analyze the problem and recommend a course of action for the distressed system. Separate from enforcement-required actions, the aim is to create a dialogue with the affected system and nearby public water systems.

Factors to be considered before any consolidation is undertaken include analyses of the capacity of the neighboring system, geographical separation, infrastructure improvement costs, benefits and costs to both systems, and access to financing for the resulting consolidated entity. With California's Sustainable Groundwater Management Act now in place, how consolidation affects the larger agency's groundwater supplies also must be taken into consideration.

Mandatory consolidation depends on whether the system fails to provide safe drinking water and if consolidation is technically feasible and provides the most efficient and cost-effective means for solving the problem. Although consolidations can reduce costs over the long run, they entail some up-front expenses. Disadvantaged communities can access financial assistance through state bond funds, State Water Resources Control Board loans and some federal programs.



Several state agencies worked with local governments in 2015 to provide drinking water to homes in East Porterville, an unincorporated community in Tulare County where numerous private water wells were contaminated or had gone dry during California's last major drought. Property owners were able to connect to the city of Porterville's water system.

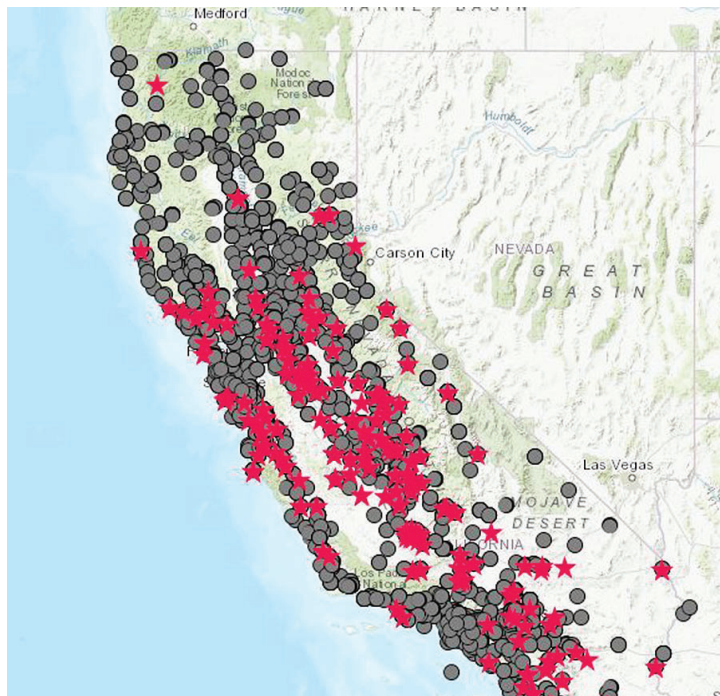


It's possible that a new source of funding emerges that would provide resources for community water system improvements. Other complexities, some jurisdictional, exist. Because Tribes were unable to access services from nearby water districts without annexing territory to those districts, a state law was enacted in 2016 that allowed water districts in San Diego County to extend service to one Tribe's lands and water infrastructure without annexation. The following year, new legislation extended that ability to all Tribes.

State Funding Areas, Disadvantaged Community Involvement	2020 Estimated Population	2020 Estimated Median Household Income
Central Coast	1,632,481	\$83,209
Colorado River Basin	824,552	\$52,807
Los Angeles Sub-Region	10,614,280	\$73,149
Mountain Counties	607,539	\$72,556
North Coast	682,679	\$68,292
North/South Lahontan	1,120,267	\$60,442
Sacramento River	2,751,161	\$68,517
San Diego Sub-Region	4,250,197	\$88,755
San Francisco Bay Area	6,930,880	\$116,056
San Joaquin River	2,068,792	\$67,983
Santa Ana Sub-Region	5,858,725	\$79,645
Tulare/Kern	2,439,082	\$55,081

Source: Nielsen Claritas, 2020, California Department of Water Resources

Note: California 2020 Estimated Median Household Income is \$79,353 and 80% is \$63,482



Water systems that were out of compliance with state drinking water standards as of December 2018 are marked by red stars.

Source: State Water Resources Control Board

Challenge: Language/Cultural Differences

A barrier to engaging and helping disadvantaged communities with their water resource issues can be the language and cultural barriers inherent in some areas of the state. In 2017, the Los Angeles Times reported that at least 220 languages are spoken in California and that 44 percent of residents speak a language other than English at home. Those languages include Spanish, Vietnamese, Mandarin, Arabic, Filipino, Cantonese, Korean, Punjabi, Russian and Hmong.

In the Santa Ana River watershed, about 25 percent of the population is foreign born. About 70 percent of those are Spanish speakers and 20 percent speak one of the languages native to Asia.

Language, literacy, cultural beliefs, wariness of the government and immigration status can all be barriers to engaging with people in disadvantaged communities regarding safe, clean and affordable water. Many immigrants from Mexico, Central and South America, and Southeast Asia have cultural beliefs and understandings drawn from experiences in other countries. There can be a mistrust of government, a mistrust of water quality and a wariness to participate in surveys or attend meetings.

It is also important for those involved in engagement efforts to consider the relative strength of a community's capital assets and the level of personal involvement in tackling water-related issues. Rather than focusing just on figures such as poverty levels or labels such as disadvantaged, those involved in community engagement efforts say it's constructive to focus on the existing challenges and possible solutions.

Other Challenges

Even where language is not a barrier, there can be other challenges. Community members are not always aware of which agencies provide them services, particularly in dense urban areas or in rental properties where water and sanitation costs are included in the cost of the rent. Some community members are reluctant to come forward to engage with government agencies. Additionally some pockets of poverty are obscured by proximity to wealthier enclaves. There is a transitory nature to disadvantaged communities, both urban and rural. They experience social isolation and a lack of awareness of where their water comes from. Many disadvantaged communities are geographically remote and may lack cellular service or access to broadband internet. A lack of transportation and affordable childcare may also hinder community members' ability to attend meetings.

In 2019, the Pacific Institute reported on the water access and sanitation issues affecting a segment of California's population. Their report, *Plumbing the Depths: Californians Without Toilets and Running Water*, noted that in 2015, more than 200,000 Californians (including those experiencing homelessness) had inadequate access to toilets and hot and cold running water. These issues can be addressed within the policy framework of the Human Right to Water, the report says, adding that while those affected by inadequate access to sanitation represent less than one percent of the population, the problem is simultaneously an urgent and a solvable one for a state as large and resourceful as California.

Small Water Systems and Water Quality Standards

Some 90 percent of the violations of drinking water quality standards occur in systems with fewer than 500 service connections. Small water systems typically operate on shoestring budgets and lack the capacity to respond to emergencies.

CHAPTER 3: STRATEGIES FOR OUTREACH & ENGAGEMENT

Water planning and management in California has historically been a top-down, technocratic endeavor driven by large agencies, often with minimal public participation, according to a 2013 report prepared for the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy.

However, through the DWR Prop. 1 IRWM Disadvantaged Communities Involvement Program, there is now an emphasis on reaching out to community-based organizations, creating a planning process that is linguistically and culturally sensitive, facilitating a conversation between community members and technical experts and conducting a process in which community members are an integral part of project planning and implementation.

Furthermore, with the more recent declaration of the human right to water, individuals and organizations are gearing their efforts toward solving one of the state's long-standing problems: those California communities struggling to access consistently safe, reliable and affordable water. Beyond drinking water, there are long-standing issues with wastewater and flood control in many communities.

Assistance is happening at all levels, including IRWM participants, local agencies and nongovernmental organizations looking to apply grant funding where it's most needed. The state has stepped up, as well. A 2019 law, SB 200, commits \$130 million annually through 2030 to help ensure safe and affordable drinking water for communities in need. The State Water Resources Control Board, through its Safe and Affordable Funding for Equity and Resilience (SAFER) program, is working to develop and implement solutions. In June 2020, State Water Board Chairman Joaquin Esquivel reaffirmed the state's commitment to making clean water a reality for all Californians. Additionally, in the draft 2020 Water Resilience Portfolio released in January 2020, the state highlighted the importance of helping vulnerable communities have their voices heard and their needs addressed.

It is important for state and local agencies to identify the characteristics of disadvantaged communities to ensure their water resources issues are understood and addressed. The California Department of Water Resources uses geographic information system technology to map disadvantaged communities. The maps are searchable based on layers of detail and can zoom in on small geographic areas such as census tracts, block groups and places. Across the Santa Ana River watershed, where about 1 in 3 residents qualifies as economically disadvantaged, California State University, San Bernardino and its project partners are developing a way to more accurately map the complex geographic distribution of the economically disadvantaged because census-block mapping can often overlook neighborhood-scale income disparities.







A public outreach meeting for the Healthy Waters for Forester Creek Disadvantaged Communities project, funded by the San Diego IRWM program's Prop. 1 grant.

Engaging members of disadvantaged communities as part of an integrated planning process can be difficult, said Maria Herrera, a former manager with the Visalia-based nonprofit Self-Help Enterprises that works in seven San Joaquin Valley counties stretching from Stanislaus to Kern, and Mariposa County in the Sierra Nevada foothills.

“Most of these communities are facing serious drinking water and wastewater challenges,” said Herrera, a Central Valley deputy regional director of external affairs for Gov. Newsom, “so it’s a competing priority of ‘what do I focus on?’”

The following topics are covered in this chapter:

-  **Communication**
-  **Fostering Engagement**
-  **Assessing Need**
-  **Building Trust**

Communication

For water managers, outreach to disadvantaged communities can be challenging. Often, contact between water agency staff and the public is done through elected boards and representatives, or handled directly through billing or mailed outreach material. Disadvantaged communities often lack connections to formal networks and civic institutions. Local and regional water managers may lack capacity in understanding how to engage with Tribal communities and be unaware of Tribal communities with significant populations within their urban and rural regions.

Regional water managers and nongovernmental organizations believe successfully engaging disadvantaged communities and underserved areas requires understanding the target audience, designing outreach materials appropriately, taking one-on-one meetings with people, making repeated contact and understanding the unique and individualized water-related concerns of each community.

In urban parts of the state, there are differing approaches to outreach and engagement with members of disadvantaged communities. Some of that is influenced by geographic scale and the challenges associated with gathering the necessary information to set the stage for public meetings.

SAWPA, for example, provides on-call translation services for water-related public meetings and documents. The service, available to public sector and nonprofit groups in the Santa Ana River watershed, includes translation to Spanish, Vietnamese, Korean, Mandarin, Cantonese, Tagalog and American Sign Language.

A program called WaterTalks supports IRWM in three Southern California planning areas: Greater Los Angeles County, Upper Santa Clara River and Watersheds Coalition of Ventura County.

Through its outreach (including in the Spanish-speaking community), WaterTalks targets the health, safety, welfare and resiliency of lower-income community members. Community events organized through WaterTalks identify questions, concerns and possible solutions about community water needs and dispenses information about drinking water, water conservation, flood management, drainage, vector control, access to parks and recreation and the overall health of watersheds.

Talking with people individually and using visual aids such as graphics to convey important points are key to conveying how the water and wastewater treatment, delivery and governance system works, said Maria Elena Kennedy, a Southern California-based water resources consultant. In some cases, she said, property owners must sign legal forms as part of wastewater or water improvement projects, a process that can require a rigorous review so that individuals such as renters who speak Spanish or other languages completely understand a document.

Being mindful of differences in language and culture and thinking through how to overcome those potential hurdles to develop conversations around water needs is essential, especially in rural farmworker communities. California has an estimated 165,000 indigenous farmworkers and their families, according to U.S. Department of



Grant funding is used to improve water system connectivity.

Labor statistics. Many of the people are from communities in southern Mexico and speak languages indigenous to that region. In addition to their distinct languages, they arrive in the United States with unique cultural beliefs and in some cases a reluctance to engage with government.

“The key to effective outreach to disadvantaged communities is that the person engaging the community speak the same language as the community,” Kennedy said. “It also helps if the person reflects the community. What has helped me in my work is that I know firsthand what it is like to live in a disadvantaged community [northeast Los Angeles], so I understand firsthand the challenges. Also, the fact that I speak Spanish as a native speaker has been a considerable advantage in my work.”

Also important is the need for agencies working with members of disadvantaged communities to clearly explain what’s expected to happen with a project and then stay engaged with personal contact.

“That is one of the hardest things to do and it just takes somebody in the community, building relationships and getting them to trust you,” echoed Denise England, Water Resource Program director with Tulare County. She added that maintaining communication with people to avoid misunderstandings is essential.

Holly Alpert, Integrated Regional Water Management coordinator with California Rural Water Association and partner to the SAWPA Disadvantaged Community Involvement program, said it is important to have a specific “ask” of a target audience in outreach meetings and to clearly communicate the goal of the meeting.

Because most residents in areas identified as economically disadvantaged are digitally connected, outreach via smartphone is an opportunity for water agencies to reach people through software applications and targeted digital communications.

Expansion and enhancement of water management resources for people targeted by Proposition 1’s funding can be achieved by increasing the level of outreach through social and health service agencies, faith-based programs, schools and other community groups rather than expecting people to come to informational meetings or workshops held by water management agencies focused solely on water. This means taking advantage of existing community efforts and events and integrating water messages into them.

Fostering Engagement

Identifying and responding to water resource needs of disadvantaged communities means aiming for the goal of water for everyone while acknowledging the many variables – infrastructure, water quality, local agency capacity – that stand in the way.

The problems are often layered, said England, the Tulare County Water Resource Program director. “You may have a water quality issue and a wastewater issue. Or a water quality issue and a management issue. It’s very complex.” Several strategies can ensure success in engaging with and learning the needs of people in disadvantaged communities, such as becoming fluent with the culture of the community and the issues people face, building trust, maintaining constant communication, soliciting their input on needs and solutions related to water supply, water quality, and flooding and not promising more than what can be accomplished.

“Listening to the residents is critical because they know firsthand what they need,” said Kennedy, the Southern California consultant. “Our job is to facilitate the solution that they see benefiting them.”

SAWPA’s Watershed Ambassador Program provides local government staff and officials in the Santa Ana River watershed the opportunity to connect with regional leaders and learn how California’s natural drought, fire and flood cycle has affected water and land-use decisions and to conceive innovative solutions to their community’s water challenges.

Disadvantaged community outreach in the mountain communities has been coordinated with neighborhood safety watch presentations at mobile home parks with positive results, said Elizabeth Martin, chief executive officer of The Sierra Fund, a Nevada City nonprofit that works with disadvantaged communities and Tribes throughout the Sierra Nevada. “We stick ourselves in front of [neighborhood watch] and tell people if you come early and sit through our talk, you get to order what type of pizza will be delivered,” she said.

Furthermore, it’s important for those facilitating assistance to small water systems to create an environment where representatives of those systems feel comfortable sharing what they are struggling with, without fear of facing fines or stricter regulation because of their disclosure, said Lance Eckhart, former director of Basin Management and Resource Planning with Mojave Water Agency.

Mojave Water Agency (MWA) provides free operator and board member training for small systems in its service area, which helps build rapport and networking opportunities. MWA also analyzes a system’s technical, managerial and financial protocols to see where improvements can be made.

“That drives triage on what needs to happen first, from needed immediately to future changes/improvements,” Eckhart said. “If we can, we try to develop a simple conceptual master plan for that system that identifies near and long-term needs.”

From there, the idea is to identify the state and federal agencies that might support the system. The grants may only address immediate needs or begin to fund tasks in the master plan, depending on the funding entity and the amount available, Eckhart said. While “big ticket” infrastructure items are grant-funded, MWA will sometimes cover upfront cost for grant preparation because cash flow and timing can hinder some disadvantaged small systems.

England, with Tulare County, said it’s important to keep the needs of community members in mind when getting them involved. She and others learned that daytime meetings are preferable to evening meetings because some people didn’t like driving at night. Others are unable to attend daytime meetings because of work or other commitments. When soliciting community members to join an advisory council, there are factors to consider, such as job commitments or the need for those individuals managing a water system to stay on site to keep it running.

Tulare County's experience with small community water systems has left several important impressions, England said. Community issues are complex and the problems of one are not always common to all. Some communities have adequate water quantity and quality, but not the proper management to deliver it effectively. Others have a good management structure, but need help navigating the grant funding process to solve water quality issues.

Assessing Needs

Success can be found in the people who are committed to their communities and their water systems and come forward to learn and engage in solving their infrastructure problems, even with limited resources. The effort includes documenting the relationship people have with their water, whether it's activities such as fishing, industrial use, irrigation and drinking and sanitation. In Southern California, SAWPA took the unprecedented step of enlisting a team of university and nonprofit partners to better understand how water is thought of, used and conserved by people living and working within its boundaries.

Known as an ethnographically informed process, the focus was on open-ended listening sessions, which helped create a holistic view of communities within the watershed. SAWPA provided a listening space to learn about community strengths and needs before asking questions related to water management — a unique approach. During a two-year period, researchers spoke to a host of individuals, including Tribal community representatives, elected officials and representatives of water agencies and mutual water companies. In addition to interviewing elected officials representing the communities, and gathering water stories from these groups, the aim was to build and strengthen relationships between residents of disadvantaged communities and institutions such as government agencies and academia. [SEE PROFILE: SANTA ANA RIVER WATERSHED, PAGE 27.]

Mojave Water Agency, which serves about 4,900 square miles of high desert in San Bernardino County, decided to pursue a somewhat customized approach to engage small water systems serving disadvantaged communities within its boundaries.

More than half of the small water systems within its boundary qualify as disadvantaged. Within the Mojave Integrated Regional Water Management Planning area, about 87 percent of the population resides in a community that meets the definition of disadvantaged.

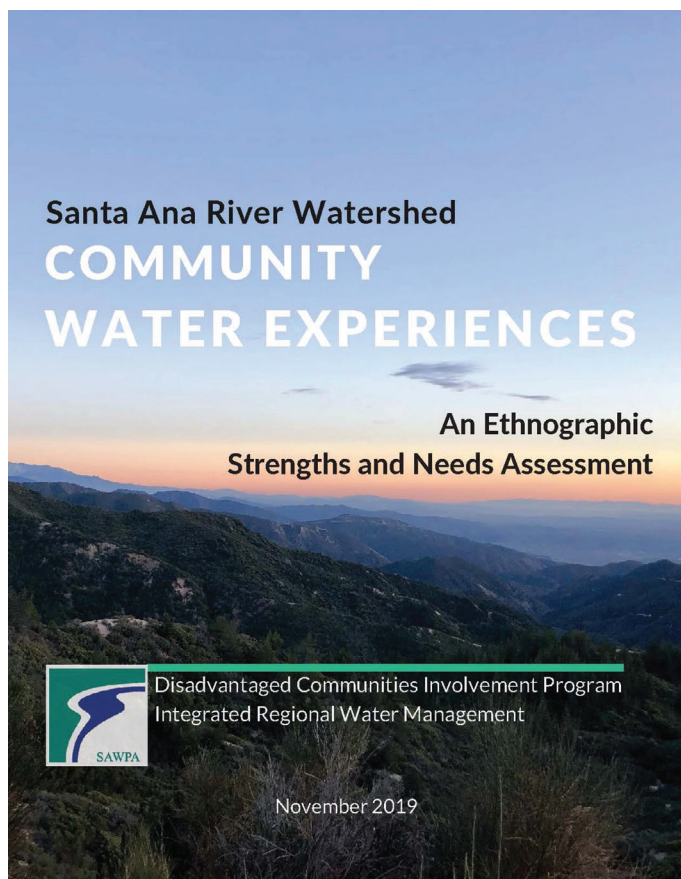
"We needed some early successes for the program and we partnered with one or two water companies that were ready to roll up their sleeves and get to work with us and the California Rural Water Association," said Eckhart, formerly with Mojave Water Agency. "We chose this approach rather than spend all our resources doing continuous outreach to the approximately 40 disadvantaged small water systems in the region. Getting something done and proof of concept has been a fantastic outreach vehicle for us."

Engagement in the Age of COVID-19

Personal interactions between agency representatives, advocacy groups and residents are at the heart of community engagement. Social distancing for the COVID-19 pandemic, which began surfacing in California in 2020, may require those serving disadvantaged and underserved communities to find new ways to reach the target audiences. Many of these agency representatives and advocacy groups have email and capabilities to conduct virtual meeting via phone and internet. The public and residents can still participate and speak up during public meetings, but local government must still be aware of lack of community access as a challenge to civic engagement.

In the North Coast region of California, outreach began with very intensive interviews with members of disadvantaged communities and conversations with planning departments, resource conservation districts and nongovernmental organizations. The goal was to understand other kinds of water-related needs, such as stream restoration or forest management projects that enhance water quality and water supply in addition to the needs of water and wastewater service providers, said Katherine Gledhill, staff to the North Coast Resource Partnership. The Partnership is a regional planning coalition of Tribes and local governments that serves the North Coast region.

The work is designed to underlie the preliminary assessment of the water supply, water quality and wastewater-related issues of disadvantaged communities and how resources and funding are directed for both project development and further engagement and education.



The Santa Ana Watershed Project Authority and its project partners introduced civic ethnography as a new way to mobilize local knowledge and regional resources.

Like other regions of the state, the North Coast is marked by small water systems that are often run by volunteer boards whose membership and leadership periodically change. Consequently, finding board members who could speak knowledgeably about their water system was challenging, as was maintaining continuity in the engagement process. Many of California's rural, forested communities face extreme challenges associated with poor socio-economic conditions and the increasing threat of catastrophic wildfire.

Jonathan Kusel, executive director of the Sierra Institute for Community and Environment, a nonprofit advocacy group based in Taylorsville, northeast of Chico in Plumas County, emphasized the importance of recognizing community members with institutional memory who can contribute to finding solutions to long-term water resource issues.

Through a process dubbed "snowball sampling," Kusel said, a chain of contact is established with different people in a community to gain an appraisal of its strengths and needs. From there, an information exchange is launched at a community meeting to identify problems, needs and solutions.

"Snowball sampling is a method of identifying folks to include in a study or project and we've been successful using it to include people in our research on mountain communities and particularly identifying disadvantaged community needs," Kusel said. "Our work with communities across the Mountain Counties Funding area ... using the method has led to identification of critical needs that I'm optimistic that we'll be able to address through policy change and direct funding."

Once water resource issues are identified and the process of securing funding for remedies unfolds, it is important that those working with members of disadvantaged communities maintain contact and ensure that established lines of communication stay open.

"I need to keep going back because their needs change also," said Alpert, the IRWM coordinator with the California Rural Water Association. "It helps to have a continuous relationship."

Building Trust

Building and maintaining trust with communities that have traditionally been left out of the water planning framework is critical, especially for Tribal governments that have their own water claims and a long-standing mistrust of government. Local government agencies must engage with Tribes in the same manner as they do other sovereign governments. Local governments have a responsibility to consult early and often with Tribal governments on issues they care about or that affect them.

“While many Tribal governments now have the capacity to engage on a government-to-government level, some still do not,” said Thomas Keegan, Tribal specialist with California Rural Water Association working with SAWPA’s Disadvantaged Communities Involvement Program. “This may require consulting time frames and processes that are different than other types of governments. Giving each Tribe the ability to define the terms of how they are to be consulted by another government is a good way to move forward in a trustful way.”

The California Department of Water Resources (DWR) notes that California’s Native American Tribal governments and Tribal communities have sovereign authority over their members and territory and a unique relationship with California’s natural resources. The Tribes and Tribal communities, whether federally recognized or not, “have distinct cultural, spiritual, environmental, economic, and public health interests and valuable traditional cultural knowledge about California resources.”

The state of California, including DWR, works on a government-to-government basis with all California Native American Tribes, regardless of federal recognition, and recognizes Tribes’ inherent sovereignty.

DWR first called for increasing Tribal involvement in statewide, regional and local water planning in 2005 as part of its outreach in the California Water Plan. That was followed in 2009 with a Tribal Communications Committee to advise the department on how to better contact and communicate with the more than 170 Native American Tribes in California. The inaugural California Tribal Water Summit was created in 2009 and subsequent Tribal Water Summits were institutionalized as part of the California Water Plan Updates in 2013 and 2018. The Tribal Water Summits have focused their discussion on understanding and recognizing Tribal water rights, accessibility to grant funding and participation in local government structures. California’s draft Water Resilience Portfolio, released in January 2020, calls for supporting the participation and full integration of Tribal governments and underrepresented communities in regional planning processes.

Tribal participation in regional water planning occurs in different parts of the state. The North Coast Resource Partnership has Tribal representation on its policy review panel and its technical peer review committee, which provides scientific and technical expertise. Tribal seats on both committees are elected by North Coast Tribes.

San Diego’s IRWM program has three designated Tribal seats on its regional advisory committee, each of which is appointed by the Southern California Tribal Chairman’s Association. One of the nine positions on the workgroups that review and recommend projects for San Diego’s IRWM grant applications is reserved for a Tribal representative. In the Santa Ana River watershed, SAWPA established a Tribal Advisory Committee to enhance communication with Tribal communities and to help address Tribal water and environmental needs.

Keys to Success

California’s diversity of geography and populations means that the needs of disadvantaged communities differ and that a one-size-fits-all approach doesn’t work. Building relationships with communities to address their fears and concerns and hear them articulate their strengths and needs takes time, persistence, follow-through and community-specific knowledge. It is important to respect and listen to community expertise and for state and local agencies and nongovernmental organizations to not assume that they know what a community needs.

Things to Consider in Engaging with Disadvantaged Communities:

Identifying

- Use DWR's Disadvantaged Communities Mapping Tool or other geographic information system technology to help identify disadvantaged, severely disadvantaged and economically distressed communities.

Connecting

- Spend the time necessary to identify community leaders and key contacts in the community. These people may or may not be community water system managers and board members, mutual water company managers, school board members or elected officials. Non-traditional leaders such as coaches, religious leaders, school principals and school board members may be the best way to ensure the broadest audience is reached.
- Go to them, instead of asking them to come to you. Establish relationships with people built on trust.
- Tailor communications to the community's needs. Be mindful of language and cultural differences.
- If email or internet access is part of an engagement strategy, be aware of whether community members have access to computers and internet connections.

Engaging

- Keep the needs of community members in mind when setting up community meetings. Ask them what their preferences are. Some people may not want to drive at night. Others are only available in the evening because of job commitments or their presence is required on-site to operate a community water system.
- Use ethnography to engage the larger perspective of need that is often integrated with water needs.
- Keep the needs of the community in mind when assessing how to help. Community challenges often can be layered and complex.
- Accept that there may be mistrust. Small water system leaders may fear being taken over by a larger entity. Tribal government leaders, who often mistrust government institutions due to a history of harmful actions and misdeeds, may resist labels such as "disadvantaged community" and may view Integrated Regional Water Management efforts as something undertaken without their consent.

Sustaining

- Maintain communications with community members throughout a project and afterward. Be aware that community needs can change. Keep going back. Be clear about what's expected to happen with a project.

CHAPTER FOUR: LOOKING AHEAD

The Proposition 1 IRWM Disadvantaged Community Involvement Program was developed to explicitly provide communities identified as economically disadvantaged or underrepresented with the opportunity to be part of the overall water resource planning and decision-making process. Engagement, trust-building and capacity building are necessary components of a successful strategy to identify and fix the water-related problems affecting people in urban and rural areas.

Solving the water resource problems facing communities that are disadvantaged, economically distressed or underrepresented in California requires engagement, listening and understanding the needs of people who are typically underrepresented in government circles. Fostering trust and building capacity are necessary components of a successful strategy to identify and resolve the water-related problems affecting people in urban and rural areas.

Moving from identifying a problem to achieving a solution often requires additional help. To compete for construction funding requires significant and often costly up-front work – feasibility studies, design, engineering and environmental review. All Proposition 1 funding regions have set aside money to assist in project development.



Community engagement is crucial to hear local questions and concerns.

In the Santa Ana River watershed, for example, nearly \$3 million in Proposition 1 grant funding has been dedicated to technical assistance that helps develop projects and programs for disadvantaged and underrepresented communities based on water needs identified in its Ethnographic Needs Assessment Report. An advisory committee spearheaded by the Santa Ana Watershed Project Authority has overseen allocation of the funds and recommended technical assistance for projects that ensure water supply resiliency, preservation and enhancement of recreational areas, open space and habitat and to better integrate all community members into the decision-making process. For the California Department of Water Resources and the agencies that administer grants under Proposition 1 and other programs, a key lesson is the importance of social capital and community capacity. Community groups may have deep connections in their communities but may lack the staff and expertise to properly manage government grants, with all the requirements of transparency, documentation and accountability. Frequent turnover of staff and board members can impede strategic planning and upend the continuity needed to see a grant-funded project to its end.

Even with new facilities and equipment, disadvantaged communities will continue to face challenges in making their water systems sustainable, including having the resources and personnel to operate a water system, oversee its governance and stabilize its finances.

An Ongoing Process

Identifying and engaging with members of disadvantaged communities is an ongoing process in water resources management. Engagement requires communicating with people from a community or, better yet, meeting with them in their communities.

Maintaining the relationships and trust built with community members means ensuring their continued inclusion in future work. Helping a community help itself means building human capacity and working with its strengths rather than treating it as a lesser entity. That may entail helping a community identify technical support and participate in a broader network of communities or groups wrestling with similar issues.

While future state water bond measures may include financial support for disadvantaged communities, watershed planners throughout the state expect the lessons and tools developed through the Proposition 1 IRWM Disadvantaged Community Involvement Program will help sustain engagement efforts. SAWPA, for example, aims to address ongoing needs of disadvantaged communities through its One Water One Watershed consultation process and plans to keep the tools and toolkits developed through the statewide program available on its website for as long as they are useful to stakeholders.

Solving the water resource problems of disadvantaged communities is a challenging endeavor, one that proceeds with the understanding that those areas with long-standing issues need not only financial assistance but a connection with their neighbors, nonprofit groups and the state as a whole. While each community is unique, they share common problems.

It is through these partnerships that the capacity and wherewithal can be built to put people on the road toward long-term sustainability.

Through its outreach to a diverse group of community members, SAWPA sought to discover how the more than 6 million people living, working and recreating in the Santa Ana River watershed use water and, most importantly, think about it. Besides people classified by the state as economically disadvantaged, SAWPA's outreach included other groups that typically have been outside the realm of water agency communication and planning, such as members of Tribal communities and recent immigrants.

SAWPA notes that watershed communities that experience these exclusions "are vibrant with strengths, such as efforts to build healthy neighborhoods, conserve water, and create green spaces."

SAWPA's outreach is predicated not on telling communities what they need, but instead on listening to them to better understand what they are thinking to help create solutions. Ultimately, the aim is to help water agencies develop best practices for responding to individual communities' needs and strengths.

Facilitating Engagement

Several of SAWPA's programs are designed to facilitate engagement and assistance to its member agencies and the greater community. Its Community Water Ethnography Project looked at the water supply challenges of people living in disadvantaged communities and identified technical assistance needs for water projects that could be supported by Proposition 1.

Translation Services

SAWPA provides on-call translation services for water-related public meetings and documents. The service, available to public sector and nonprofit groups in the Santa Ana River watershed, includes translation to Spanish, Vietnamese, Korean, Mandarin, Cantonese, Tagalog and American Sign Language.

Trust the Tap

Aimed at communities in the Santa Ana River watershed that mistrust the safety of water from the tap, Trust the Tap is a multilingual informational package of materials available to water suppliers that emphasizes the economic value and safety of tap water. Water agencies can use the materials in the Trust the Tap toolkit to facilitate respectful, compassionate outreach with their constituents. Materials in the toolkit are available in Spanish, Vietnamese, and English.

Watershed Ambassador Program

In partnership with the Local Government Commission, SAWPA's Watershed Ambassador Program for local government staff and officials facilitates valuable networking opportunities, teaches participants about how drought, fire and flooding affect water and land-use decisions and helps prepare them to offer forward-looking solutions to their community's water challenges. Those who complete the program are recognized as "demonstrating informed leadership, a commitment to healthy and resilient communities, and dedication as a public representative of the watershed."

PROFILE

FARMING COMMUNITY: ARMONA

California's San Joaquin Valley supplies agricultural products to the state, the nation and the world, yet amid this economic prosperity are some of the state's poorest communities. Obtaining safe and reliable drinking water for the 350,000 people living in the 450 communities identified as disadvantaged is an important environmental health and social justice issue, according to *The Struggle for Water Justice in California's San Joaquin Valley: A Focus on Disadvantaged Unincorporated Communities*, a 2018 report by the University of California, Davis Center for Regional Change.

The valley is plagued by aquifers contaminated with, among other things, nitrates from fertilizers and naturally occurring arsenic. Despite having just 10 percent of California's population, the valley has more than one-half of the public water systems that are out of compliance with state water quality standards.

The problem is significant. But differences exist between the water infrastructure needs in the valley's urban communities, such as Fresno and Bakersfield, and the much smaller communities often typified by a handful of residents served by a community services district (CSD).

One of those is Armona, a small, unincorporated community in Kings County. The community is predominantly Hispanic, with Spanish the primary language spoken in about half of all households, according to census data. The Armona CSD has 1,190 connections serving 4,150 people. In 2016, the Armona CSD received about \$9 million in funds from Proposition 1 and the State Water Resources Control Board to fix long-standing water quality issues.

Part of the outreach to Armona began in 2013 when the Kings Basin Water Authority, a consortium of more than a dozen municipalities and water districts, evaluated the needs of disadvantaged communities within its five subregions, including Armona, as part of a pilot outreach effort funded by Proposition 84.

Through its initial study, the Kings Basin Water Authority connected with community members in northern Tulare County, western Fresno County and elsewhere on collaboration across jurisdictions and sharing resources to improve water supply reliability.

Soua Lee, associate resource analyst with the Kings River Conservation District, a member of the Authority, said there has been growing interest by people in disadvantaged communities to learn how they can improve their water and sanitation services. A project advisory committee of integrated regional water management representatives and members of disadvantaged communities from a wide geographic area helped pave the way for Armona's involvement, she said.



The Armona Community Services District received funds from Prop. 1 and the State Water Resources Control Board to fix long-standing water quality issues.

Representatives from Armona were among the first from disadvantaged communities in the area to meet with the project advisory committee to discuss how to improve community participation in the Proposition 1 Disadvantaged Community Involvement program, said Maria Herrera, a manager with Self-Help Enterprises, the Visalia-based community development organization that works in seven San Joaquin Valley counties stretching from Stanislaus to Kern, and Mariposa County in the Sierra Nevada foothills.

Outreach in the Kings Basin, which has more than 100 disadvantaged communities, was directed at special districts, schools, mobile home parks, cities, unincorporated areas and community water systems. Through meetings, residents were asked about issues relating to their water systems, wastewater and flood management. The outreach and presentation materials were in English and Spanish and translation services were available at all the meetings. Jim Maciel, chairman of the Armona CSD, said outreach and engagement are critical because so many disadvantaged and underserved communities in the San Joaquin Valley have water infrastructure needs and are unaware of the opportunities and resources available to them. Some districts have boards of directors that are active; others have trouble obtaining a quorum for regular meetings. Furthermore, there is the challenge of connecting with primarily Spanish-speaking areas, he said.

Cristel Tufenkjian, manager of community and public relations for the Kings River Conservation District, said getting to know people is the first step to helping communities meet their needs. "It's really been about building relationships – it just doesn't 'just happen,'" she said. KRCD has been working with Self-Help Enterprises on outreach to take advantage of their community connections "instead of us just going on our own," Tufenkjian said. Getting out into the community and talking with people is the best way of informing them rather than the traditional method of issuing email alerts for workshops. "We understand there are better methods than the normal public outreach we would do to our constituents," she said.

The work is paying off. "We are starting to see some results," Tufenkjian said. "The more you have leadership in those communities, the better they and we can understand what the issues are and to help solve them."

What to Remember

- 💧 Talk to people at special districts, schools, mobile home parks, cities, unincorporated areas and community water systems.
- 💧 Ensure adequate communication with those who primarily or exclusively speak a language other than English.
- 💧 Encourage and support local communities in building human and physical capacity to become self-sufficient.

PROFILE

SEMI-RURAL COMMUNITY: QUAIL VALLEY

One example of successful engagement with members of a disadvantaged community to accomplish vital infrastructure upgrades is in Quail Valley, an ethnically diverse community in western Riverside County.

There, state and local funding combined to solve a long-standing problem of converting aged septic systems to a modern sewer system. The project was spearheaded by Eastern Municipal Water District and launched in 2017. It connected 215 properties to the sewer system and was paid for through grant funding from a variety of agencies, including the State Water Resources Control Board (\$9.5 million in Proposition 1 funds), Santa Ana Watershed Project Authority (\$1.93 million) and the Santa Ana Regional Water Quality Control Board (\$455,814).

Now part of the city of Menifee, Quail Valley is designated as a disadvantaged community based on its median household income. According to EMWD, the annual median household income in Quail Valley is \$31,650, marking it as severely disadvantaged. About 40 percent of residents speak Spanish as their primary language.





The Quail Valley example is seen as an important milestone in the process of identifying water resources challenges and getting assistance to people whose contact with a water agency never went beyond receiving a bill each month.

"It was a success story because of the engagement," said Maria Elena Kennedy, a consultant brought on by SAWPA to work with residents in 2008. "Had there not been the engagement initially, there would not have been the success."

The septic-to-sewer transition was mobilized because of a 2006 building moratorium issued by the Regional Water Quality Control Board due to the faulty septic systems, which leaked during storms, sending wastewater flowing through yards and down streets. Quail Valley residents didn't understand the moratorium or why it was needed. All they knew was the daily experience of living with failing septic tanks, Kennedy said.

"When I first started, they didn't want to talk to me," she said. "It took me two years of going out there every day and getting to know them and convincing them that what we're trying to do is bring a remedy to their community." Eastern Municipal Water District in 2006 began pursuing funding for the septic-to-sewer conversion.

What to Remember

-  Understand your audience. If the community is comprised of residents who don't speak English, be sure to have someone with you who is bilingual.
-  Get to know the local community leaders (including clergy) and local elected officials. Having that third-party validation is crucial to gaining the trust and acceptance of residents.
-  Be consistent. Don't go to just one community group meeting and never go back. Go to every meeting, be visible in the community. Hold your own town halls if necessary.
-  Don't oversell the project. Residents are more likely to trust you and your message if you are honest about all aspects regarding the project. For example: timeline, road detours and road conditions, possible water shutoffs during crucial points in the project. Nothing should be a surprise.

Once the process got rolling in 2009, community involvement was extremely important. Granting agencies, including SAWPA, wanted to make sure residents were all-in on the septic conversion because access to their property was a necessary part of the process, according to Amanda Fine, senior public affairs program manager with the district. Fine was directly involved in the project and handled all the outreach beginning in 2016.

“We attended every community group meeting, we called people and literally knocked on every door,” she said. “We got to know people’s pets.”

Fine credited board president Ron Sullivan’s presence in Quail Valley, which he represents on Eastern’s board, as well as the recruiting of trusted community members. “We had ambassadors out there, so [residents] weren’t just seeing another person wearing an EMWD logo shirt,” she said.

Once people in Quail Valley were acquainted with the project and realized they weren’t being hit with a huge bill, Eastern staff were able to ensure that everyone was informed, including some landowners and those spending time in other locales.

“I could send 200 letters once a week, but the grassroots communication was what we learned is the best way” to reach people, Fine said. “It’s very personal allowing somebody to come onto your property and your backyard.” Kennedy said residents didn’t want to talk with her initially, thinking she was a water agency employee. There was lingering resentment and misunderstanding about the building moratorium. “They didn’t understand the governance because they are very isolated,” she said.

Kennedy said it was important to convey to people the intent of the project, its fiscal impact (nothing beyond a new monthly charge of about \$40 on a sewer bill) and the commitment to see it through.

“Engineering is always the easy part. It’s the community engagement that’s hard, especially in a community like Quail Valley where it was very isolated and there was a huge language barrier,” she said.

As a consultant, she said she pledges to people her utmost commitment to see a project to completion, recognizing the pitfalls. “Always under promise and overperform,” she said, “and you’ll never go wrong.”

PROFILE

URBAN COMMUNITY: MAYWOOD

Disadvantaged communities are situated throughout some of California’s densest urban areas, often neighboring more affluent areas that do not experience the same difficulties with safe, clean and affordable water.

The challenges go beyond water quality needs. Often, residents living in disadvantaged communities are unaware of how the decision-making process works or are reluctant to participate.

One of those communities is Maywood in Los Angeles County, a small city southeast of downtown Los Angeles with about 27,000 people, most of them Latinos and recent immigrants. The average annual household income is about \$36,000, compared to the county average of about \$53,000.



Maywood, which is served by three mutual water companies, has had issues with its tap water quality. Sergio Calderon, a former Maywood city councilman, said that while he has not experienced the problem directly, others have encountered yellowish-brownish water accompanied by an odor “that is not the natural, neutral, nonexistent smell that water should have.”

Among other things, the odor and discoloration are due to naturally occurring manganese that ends up at the tap whenever water lines get flushed, said Calderon, who serves on the board of directors of the Water Replenishment District (WRD) of Southern California, the state’s largest groundwater agency whose district boundaries include Maywood.

“The federal government says it’s really not a health issue, but at the same time you don’t want to touch it, you don’t want to wash with it and you don’t want to shower with water that is that color and has that smell, so it is a quality of life issue,” he said.

Communities like Maywood often run into trouble because they are small, operate on a shoestring budget and have trouble navigating the grants application process. “Nobody wants brown, tainted water but these companies are way too small to gather up all this money,” said Sergio Palos, general manager of Maywood Mutual Water Company No. 1. “When they do gather money, rates will go through the roof for a small disadvantaged community.”

A treatment plant funded with a loan from the State Water Resources Control Board was installed in 2018 to remove manganese. Maywood Mutual No. 1 had to obtain a use permit and Palos said it was a struggle to find help with technical assistance. Ultimately the Water Replenishment District of Southern California came through with assistance.

“Without their help, I don’t want to even think about it,” Palos said.

Steven Rojo, general manager of Maywood Mutual Water Company No. 2, said iron and manganese that oxidized in the distribution system created the “murky aesthetic look.” He credited Proposition 1 monies and other state funds that Assembly Speaker Anthony Rendon helped secure for fixing the problem.

“It would have been too expensive for us to do it,” he said. “We are a small mutual water company. We barely make enough to operate the system.”

WRD’s assistance came via its Safe Drinking Water for DACs Program, which provides technical assistance to small systems in obtaining grants and loans from funding agencies for the installation of treatment systems for owners of wells affected by contamination. Since 2006, WRD has worked closely with the Maywood Mutual Water Company No. 2 with extensive well testing through its well-profiling program.

What to Remember

- Understand that disadvantaged communities exist in some of the densest sections of California’s urban landscape.
- Small water agencies serving disadvantaged communities can be leery of offers of assistance from larger entities because of the concerns about mandatory annexation/consolidation.
- Acknowledge the cultural differences. Many people in neighborhoods where English is not the primary language, particularly recent arrivals to the United States, are not familiar with or may be leery of interacting with government.
- Partnerships between large agencies and small systems can result in improvements for members of disadvantaged communities.

While the drinking water concerns are not new, what was new is that a large agency such as WRD was able to provide technical expertise that helped to guide Maywood's water providers. Ultimately, the residents in partnership with the district brought about the solution and the road to a successful outcome. In an area as large as Los Angeles County, the issues with tap water quality are not exclusive to Maywood.

"Many of the cities have these issues, but for whatever reason, I guess Maywood is the most boisterous or the loudest or the squeaky wheel," Calderon said. "Thank goodness for that, because we really did get a lot of help from the state."

Palos with Maywood Mutual Water No. 1 said small agencies like his must be aggressive in getting the help they need.

"There are a lot of programs available for the mutual companies [now] when before they had a lot of doors closed," Palos said. "There are bigger water agencies and associations to reach out to. You have to fill out forms. The magic may happen if you are persistent."

PROFILE

MOUNTAIN COMMUNITIES

California is ringed with mountains and foothills, from the Cascades and Klamath ranges in the north, the Sierra Nevada along the eastern edge, the Coast Ranges that span in different segments from Humboldt County to Santa Barbara, and the Transverse and Peninsular ranges that eventually swing inland through Southern California to the Mexican border.

Helping disadvantaged mountain communities with their water resource issues is challenging for several reasons, not the least of which is the sheer distance. That's particularly true in the Sierra Nevada, which comprises more than 25 percent of the state's land area. Ten integrated regional water management regions spanning much of the Sierra Nevada are involved in engagement efforts with disadvantaged communities.

Median household income is not an accurate tool to define a disadvantaged community in mountain communities because of the proximity of wealthy clusters of houses to the surrounding areas, said Elizabeth Martin, chief executive officer of The Sierra Fund, a Nevada City nonprofit that works with disadvantaged communities and Tribes throughout the Sierra Nevada. For example, Grass Valley, about 60 miles northeast of Sacramento, is defined as a disadvantaged community because of its median household income. But people driving through the community might not view it as disadvantaged because of its demographics. In addition, Martin said the screening tool created by the state to identify environmental justice communities generally doesn't work well in the Sierra Nevada, where communities are typically spread out and thinly populated.

The region is lined with hundreds of miles of privately constructed ditches and dams put in place during the Gold Rush to move water to mining operations. This infrastructure continues to operate today, but it is old and vulnerable to decay and destruction by fire. Financial responsibility for repair is not entirely clear.

"There has never been a way to figure who is really responsible for paying all these costs," Martin said. "A disadvantaged community that relies on these ditches has never been able to figure how to raise the money to repair that. When they fall apart, there is nobody you can give the bill to."

Some small communities are far from the easy reach of state and local agencies. Establishing and maintaining contact across such a wide geography requires work. Cellular phone and internet service are not universal. Steep terrain and winter conditions can hamper access. In some isolated communities, outsider interest in resources and the lack of understanding or concern for local challenges can breed fear and mistrust.

"The best way to engage disadvantaged communities is to not be episodically interested in their problems until the money runs out," said Martin. "We need long-term dedicated funding for disadvantaged community work in the Sierra Nevada."

Each part of the Sierra Fund's work in mountain communities has a Native American Tribal component. Anyone engaging with Tribal members first must acknowledge the legacy of mistreatment and abuse endured by their ancestors, Martin said. Furthermore, Tribal members have grown savvy as to which non-Tribal groups truly have their best interests in mind. "Don't wait until you have a grant proposal that's due in three days before coming by for their endorsement," she said. Instead, sit with them and ask what they want, what they need and talk about how those goals can be reached. Tribal engagement "is the hardest nut to crack and we've spent a lot of time working to get in there and every single time, it's by their invitation," Martin said. "We have managed to create a relationship that we can do a number of different projects with different Tribes."

Nongovernmental organizations such as Martin's say extensive outreach helps build trust and a mutual understanding of what the community needs are. This includes methods such as hiring a Spanish speaker for bilingual outreach, meeting with people in federal housing, apartments and community rooms, and partnering with local law enforcement, which helped to promote greater public safety and awareness of environmental issues.

Many disadvantaged communities in the region share similar characteristics: sparsely populated, not incorporated as a city and having water systems with no intertie with any other water system. Aging infrastructure is a major issue, with some pipes dating to the 1800s, and may include dams or other structures that hold back the toxic legacy of historic mining. There are wide variabilities in system pressure and water loss that happens through undetected or unrepaired leaks.

In the wake of a string of devastating wildfires, residents are concerned about having the capacity to combat a fire. Wildfires destroy water infrastructure by burning it or burying it in sediment washed down from fire-scarred slopes. Across the region, a lack of water or sources that are not pressurized or are vulnerable to power outages that render systems inoperable leave communities at risk. In the town of Paradise, which was devastated by the 2018 Camp Fire, plastic pipes melted during the disaster, robbing the town of its water supply to fight the flames.

In Nevada County, discussions with the Spanish-speaking residents in some mobile home parks revealed potential inadequacies in fire evacuation plans. That finding is spurring a response by the Nevada County Office of Emergency Services, Martin said.

What to Remember

- Realize that connecting with disadvantaged communities in mountain areas is inherently difficult because of terrain and distance.
- Establish and maintain relationships throughout the funding process and beyond.
- If necessary, contact key community members and public service districts directly by phone or individually near their places of work to ensure they are aware of integrated regional water planning.
- Understand that the opportunity exists for grants to provide assistance, even for areas that don't meet the statutory definition of a disadvantaged community.

Disadvantaged communities in mountain areas have many critical and unique water supply, water quality and wastewater issues and needs. The opportunity exists for grants to provide assistance, even for communities that don't meet the statutory definition of a disadvantaged community, according to the Southern Sierra Regional Water Management Group (RWMG), whose boundaries include portions of Madera, Fresno and Tulare counties.

Southern Sierra RWMG's 2018 Integrated Regional Water Management Plan noted that mountain communities are stratified, with tourism-based economies and higher-income residents of some areas counterbalanced by the remnants of mining, cattle and logging economies in other areas that are marked by low income and poor infrastructure. Some isolated and remote communities lack an identifiable point of contact to reach disadvantaged populations, making meaningful interaction labor-intensive and costly. In its outreach, the RWMG prioritized social, economic and cultural components in water resources management. Through brainstorming sessions with stakeholders, RWMG identified drinking water quality, lack of planning and integration, affordability of municipal and private water, substandard water systems in unincorporated communities and Tribal water rights as some of the most pressing needs.

PROFILE

NATIVE AMERICAN TRIBES

More than 100 federally recognized Native American Tribes exist in California – more than any other state. In addition, more than 70 other tribes are not federally recognized. California requires state agencies to develop consultation policies that recognize all Native American Tribes, whether or not they are federally recognized. Many of California's Tribal communities reside throughout the state in both urban and rural communities, and on sovereign trust land, fee land and on their ancestral land.

In its One Water One Watershed plan, the Santa Ana Watershed Project Authority notes that, "to many indigenous people, water is life and water is sacred."

However, a legacy of discrimination, underrepresentation and exclusion from water policy planning has left Tribes wary of engagement. Each Tribe in California has its own governance and unique cultural identity. In some cases, there is a lack of awareness and understanding by local agencies regarding Tribal communities and governments. The depth and source of mistrust by Tribal communities for non-Tribal state and local governments differs with each Tribe and individual Tribal leader's perspective and experience. As a result, it is often necessary for local water agencies to understand their Tribal neighbors and the Tribal history attached to their region in order to begin their Tribal engagement. Elizabeth Martin with The Sierra Fund, a Nevada City nonprofit that works with disadvantaged communities and Tribes throughout the Sierra Nevada, recalled an early meeting between regional water officials and Tribal members in which the latter expressed appreciation for the offer of water system assessments but asked that non-Tribal members not be a part of the discussions among Tribal members. The government officials respected the request and gave Tribal participants the space they were asking for.

There are some commonalities among Tribes. For instance, throughout the state, when encountering California's emphasis on helping disadvantaged communities, Tribes have resisted the label of "disadvantaged" with respect to their water resource needs. They may be economically disadvantaged under state guidelines, but the bigger issue for them is their underrepresentation.

"For us, all Tribes are underrepresented in the political structure if not in the [integrated regional watershed planning process]," said Sherri Norris, a member of the Osage Nation (based in Oklahoma) who serves as executive director of

the California Indian Environmental Alliance, an advocacy group. “We are trying to call it the Disadvantaged and Tribal Involvement Program because nobody likes to be called disadvantaged.”

The California Indian Environmental Alliance has been involved in integrated watershed management since 2014. Norris is the Tribal Engagement Coordinator for the North Coast Resource Partnership and programs in the San Francisco Bay and Sacramento River funding areas. A common thread is ensuring that outreach and involvement occur efficiently.

“To ask people to spend their time [in meetings], there needs to be some kind of outcome,” Norris said. “Tribes have one staff person wearing many hats and to ask them to show up at a meeting ... is really difficult.”

The relationship between Tribes and non-Tribal agencies can be complicated, considering that Tribal governments are sovereign and stand on equal footing with state government. It’s a relationship that’s been recognized in early federal policy and U.S. Supreme Court case law for nearly two centuries.

The state Department of Water Resources notes that California’s Tribal communities have distinct cultural, spiritual, environmental, economic and public health interests. They also have valuable cultural and historical knowledge about natural resources.






Tribal communities exist in California from its border with Oregon south to the U.S. border with Mexico. They are gaining a seat at the table in the regional water planning process. In California’s North Coast region, where 34 federally recognized Tribes have ancestral land, Tribal members have joined regional water planning efforts that updated aging infrastructure, restored vital riparian and aquatic habitat and ensured climate resiliency and water supply reliability. In the Inyo-Mono region, each of the six participating Tribal entities has its own seat at the decision-making table.

In Southern California’s Santa Ana River watershed, four federally recognized Tribal communities are present in a region that spans portions of San Bernardino, Riverside, Orange and Los Angeles counties. Additionally, there are many Tribes recognized by the state of California that have an ancestral claim to the Santa Ana River Watershed. While the exact number of these Tribes is unknown, it is estimated to be about 70 Tribes or individual bands.



The North Coast Resource Partnership has tribal representation on its policy review panel and its technical peer review committee.

What to Remember

-  Acknowledge that cultural differences exist between state and local agencies and Tribes about knowledge, language and meaning of water resource issues. Recognize the cultural and spiritual relationship Tribes have between themselves and the Earth.
-  Cultivate and maintain relationships with Tribal members over the long term, not just when water planners want their help.
-  Talk with Tribal leaders early and listen to what they have to say to identify their needs and concerns. Allow adequate time for response and maintain a constant line of contact.
-  Ensure that Tribes’ sovereign nation status is recognized and respected throughout the engagement process.
-  Provide suitable location for meetings and understand that consideration of how and where Tribes prefer to meet is important.

Across the state, some Tribes are challenged by remote locations, access to existing infrastructure, wastewater issues and economic barriers. It's not possible to categorize them as all having the same water issues because each Tribe is unique. For example, some Tribes have source water and wastewater challenges because the federal government established reservations on land that was not optimum for that purpose and not always the first choice of the Tribe.

Water challenges Tribes encounter include gaining adequate access to the planning process and being heard. Water use decisions affect not only state and local communities, but the Tribal communities as well. Early in the planning process, it is particularly important to include Tribes to ensure unique conditions or requirements are recognized and accounted for.

Among the overarching issues Tribes face are securing water rights and ensuring their inclusion in the capital projects improvement process. Facilitators must conduct an engagement process that is deliberate, thoughtful, considerate and respectful.

"You don't get to just walk in, introduce yourself and tell them how you have figured out how you can help them," said Martin, with The Sierra Fund. "There is a need to do trust building."

PROFILE

HOMELESS OUTREACH

An emerging challenge relates to finding solutions that provide those experiencing homelessness with consistent access to drinking water and sanitation. The process requires extensive outreach and engagement and illuminates the intersection between those experiencing homelessness and the water management sector.

Officials in regions around California have initiated explorations into the relationship between homelessness and water that go beyond the historic view of homeless encampments as simply a threat to water quality. The increase in homelessness has led to encampments along riverbanks and stormwater channels in many towns and cities. That has created additional challenges in protecting river ecosystems and their water quality.

SAWPA is working on an effort to assess the impacts of homelessness on water quality, riparian and aquatic habitat, including developing a monitoring program.

The presence of unsheltered people along waterways throughout California is often treated merely as a threat to water quality and a safety risk from potential flooding. Encampments along waterways are unsafe, discourage recreation, present health risks and impair water quality, local government officials say.

Local governments in Ventura and Los Angeles counties and the Bay Area all recognize the gravity of the problem and are exploring how to address it. SAWPA has hosted two symposia on the intersection between water and those experiencing homelessness and includes the issue in its disadvantaged community involvement effort.

It is a serious matter. In many towns and cities in California, those experiencing homelessness lack access to clean water for drinking and basic hygiene, a problem exacerbated by local policies that restrict access to public restrooms and drinking fountains in public areas.

The Environmental Law Clinic at the University of California, Berkeley and the Environmental Justice Coalition for Water examined the issue in a 2018 report, *Basic & Urgent: Realizing The Human Right To Water & Sanitation For Californians Experiencing Homelessness*.

“For those 91,642 Californians who spend nights on streets, in parks, or in vehicles, accessing toilets and clean water for drinking and bathing is a daily struggle – one that not only undermines their health, safety, and dignity, but violates their human right to these basic necessities,” the report said.

The report called for minimum state standards for access to water and sanitation and ways for new developments to include publicly accessible drinking fountains and toilets.

Access to sanitation and hygiene is important to reduce the occurrence of water-borne diseases such as cholera, bacillary dysentery, *E. coli* infection, viral hepatitis A and typhoid.

That lack of access can have consequences. An outbreak of hepatitis A, a highly contagious liver disease, among homeless people and drug users in San Diego in 2017 was blamed on lack of access to public restrooms, sanitation and hygiene facilities. Over 10 months, 584 people fell ill, nearly 400 were hospitalized and 20 died. A subsequent state auditor’s report said while local health officials took reasonable early actions to curb the outbreak, they lacked an adequate plan to prevent and respond to hepatitis A.

In its 2018 report, *Measuring Progress Toward Universal Access to Water and Sanitation in California*, the Pacific Institute said, “Adequate water without sanitation is insufficient for meeting the overriding objective of preventing waterborne health threats from chemical contaminants and disease.”



While awareness is growing of the need to provide clean water and sanitation to those experiencing homelessness, finding a comprehensive solution is elusive.

What to Remember

- 💧 Consider the water supply and sanitation needs of people experiencing homelessness. Water quality impacts are a symptom of their lack of access to basic services. As a model, consider Lava Mae, which offers mobile showers and hygiene services to those in need in the Bay Area and Los Angeles.
- 💧 Establish a bond of trust and respect with those experiencing homelessness and seek out members of the community for outreach and engagement.
- 💧 Where possible, foster a measure of capacity in campsites near rivers to help build relationships and protect the watershed.



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