Chapter 10
Economically Disadvantaged Communities

10.1 Introduction

In California, economically disadvantaged communities (DAC), also sometimes referred to as environmental justice communities, or vulnerable communities, are formally defined by a variety of factors including pollution burdens and population characteristics. The roots of disadvantage in these communities are often deep and include elements of racism, discrimination, and segregation (Fernandez-Bou et al. 2021). The legacy of that history is that DACs experience disproportionate and adverse human health and environmental burdens that arise from a number of causes. These include, but are not limited to, inequitable access to clean water, clean air, natural places, and resources for other basic human health and environmental needs; higher exposure to pollutants, hazardous waste, and toxics; and underinvestment in affordable housing that is safe and healthy, including basic infrastructure and services to support such housing, such as clean, affordable drinking water and effective sewage management (E.O. 14096, section 1).

This chapter provides an overview of DACs and their water supplies. It incorporates information from several other sections and chapters to summarize possible effects of the Sacramento/Delta update to the Bay-Delta Plan on DACs under current regulatory conditions. The State Water Board is at the forefront of assisting DACs with obtaining clean, safe, and reliable water supplies; this chapter also discusses relevant State Water Board financial and technical assistance programs.

While the focus of this chapter is safe and affordable water supplies, the concerns of DAC communities, many of them black, indigenous, and people of color (BIPOC) extends beyond drinking water. Redlining, forced migration, and economic segregation are also policies and forces that have created barriers to and distance from remaining natural areas for BIPOC people. Tribal peoples have been displaced from their ancestral homelands; and the nation's public lands, beaches, and other natural areas have at times been sites of exclusion or, when visited, places of alienation or intimidation for BIPOC individuals. This has led in some cases to unequal access to nature. In addition, patterns of development and resource extraction have meant that Black, Latino, Asian, Native American, and low-income families are far more likely to live in a place that is deprived of nature's benefits, including spaces that allow community members to get outside safely and access clean water, clean air, and a diversity of wildlife. This deprivation has serious consequences for both physical and mental health (Rowland-Shea et al. 2020). California's 30x30 initiative recognizes that preserving 30 percent of land—that encompasses inland rivers and wetlands—as well as coastal waters, is vital for biodiversity, enhancement of drought resilience, maintenance of cultural and recreational activities, and equity (CNRA 2022).

The State Water Board appreciates input from environmental interests, representatives of DAC communities, and BIPOC organizations related to the Sacramento/Delta update. Chapter 12, *Public Participation*, summarizes the public participation activities that have occurred during the pre-scoping and scoping phases of the environmental review process for the Sacramento/Delta update, including a discussion of recent environmental justice focused listening sessions on the State Water Board's planning and implementation efforts that were held in March and June 2023. The State

Water Board encourages continued input from DAC and BIPOC communities for consideration in the Sacramento/Delta update.

10.2 Overview of DACs and Water Supplies

It is estimated that 9.4 million people live in California DACs, which is about 25 percent of the state's population; worse conditions exist in the San Joaquin Valley, which has approximately 2.2 million people living in DACs or 55 percent of that population (Fernandez-Bou et al. 2021). Many DAC communities in California are inhabited by low-income and BIPOC people. This is a product of urban segregation, redlining, and the racialized exclusion from public benefits that occurred as people of color were pushed outside of city limits, into industrial and service worker areas, or relegated to far-flung farmworker camps where they often experienced degraded and exploitative conditions (^London et al. 2021).

Several tools can be used to identify DACs across the state. CalEnviroScreen is an analytical tool created by the California Environmental Protection Agency that combines different types of census tract-specific information into a score to determine which communities are the most burdened or disadvantaged. The California Department of Water Resources (DWR) also created an interactive DAC Mapping Tool that identifies DACs and can be filtered by Census Place, Census Tract, and Census Block Groups. The State Water Board and DWR determine DAC status based on percentage of the statewide annual median household income (MHI), among other income-related metrics. A DAC in California is defined in Water Code 79505.5 as a community with an annual MHI that is less than 80 percent of the statewide MHI, and a severely disadvantaged community (SDAC) is defined by an MHI below 60 percent of the statewide MHI.

DACs are located throughout California. Figure 10-1 is based on census blocks and shows that DACs and SDACs occur in each of the geographic regions of the study area.

A subset of DACs are comprised of individuals who are low income and located outside of incorporated city boundaries (i.e., outside of city limits). These disadvantaged unincorporated communities (DUC) often include people of color. DUCs often risk significant violations of their human right to water because they lack political clout and economic resources (^London et al. 2021). Some DUCs are "fringe communities," meaning they exist within a city's spheres of influence but in areas that are not annexed. Other DUCs are "island communities," areas surrounded by one or more cities but unincorporated; still others are "legacy communities," located in more remote areas that lie beyond the growth boundaries of incorporated cities and have existed that way for at least 50 years. DUCs can be among the most underinvested communities and may lack safe and affordable drinking water, adequate sewer systems, safe housing, access to public transportation, green spaces such as parks, and infrastructure like sidewalks and street lights (^PolicyLink 2013). Consumption of contaminated water in DUC communities can result in chronic illnesses and affect maternal health and educational outcomes. These communities often experience higher rates of underlying health conditions, such as diabetes, asthma, and heart disease, which can intensify the effects of contaminant exposure (PPIC 2021).

DACs often are served by small public water systems and rely on groundwater either in whole or in part for their water supply. Their groundwater wells tend to be shallow and thus are more susceptible to water quality issues or the risk of going dry if the groundwater level is lowered. While the public water systems serving DACs still are required to maintain essential resources and meet

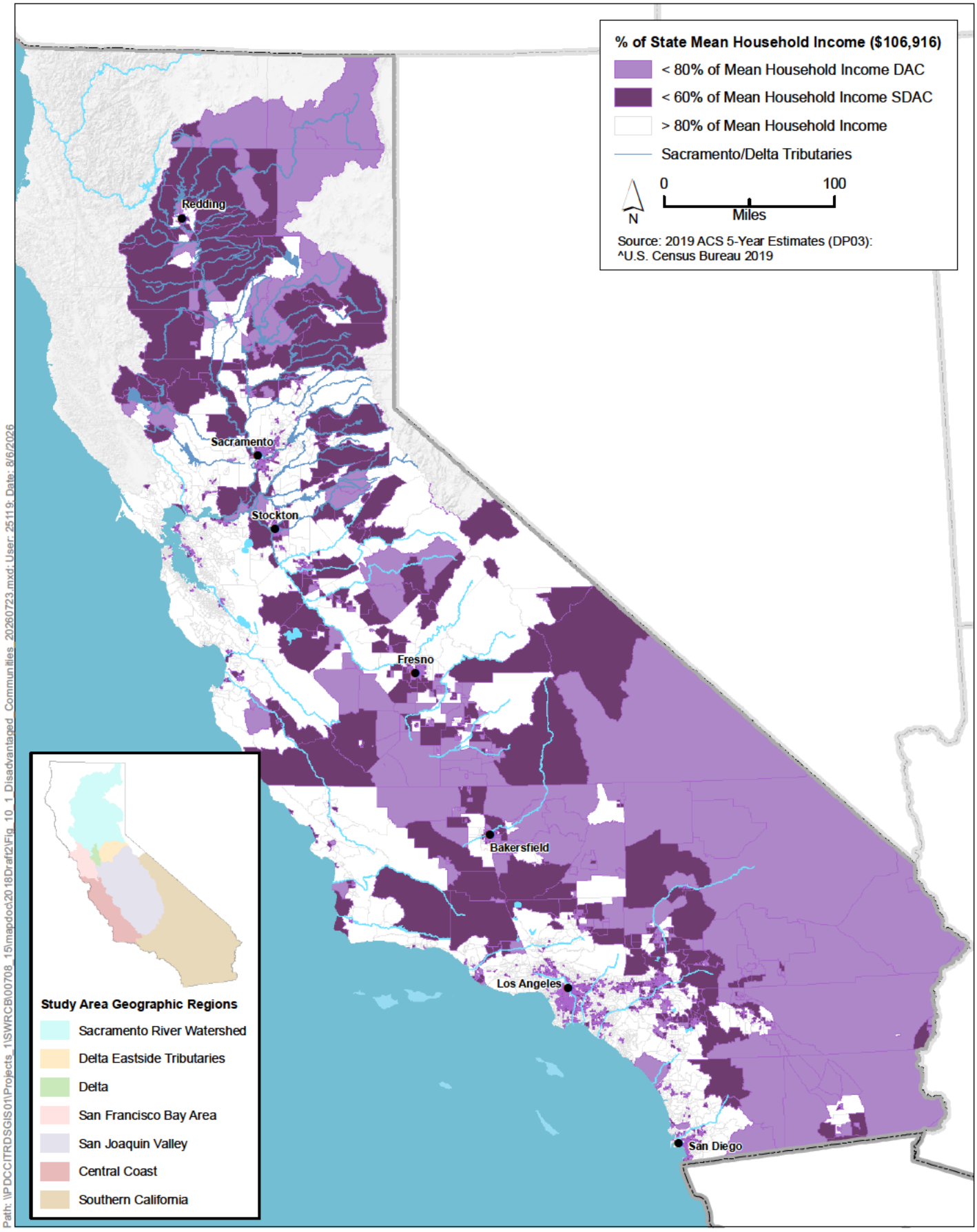

Figure 10-1
Disadvantaged Communities within the Study Area

public health requirements, these systems are less likely to have the resources (e.g., infrastructure and financing) of more affluent communities to respond adequately to water supply or water quality emergencies. Systems serving DACs may be unable to treat their water source, find alternative supplies for a contaminated drinking water source, deepen their wells, or build new wells. As a result, DACs may be more vulnerable than other municipalities and cities to impacts on surface water and groundwater supplies.

Although most of the state's residents receive drinking water that meets federal and state drinking water standards, many drinking water systems in the state consistently fail to provide safe drinking water to their customers. Lack of safe drinking water is a problem that disproportionately affects residents of California's disadvantaged communities. Over 95 percent of Californians are served by water systems that meet drinking water standards, but this leaves almost a million people being served by failing water systems and over a million more getting their drinking water from at-risk public water systems or at-risk state small water systems or domestic wells. (^SWRCB 2023a).

The State Water Board's annual Drinking Water Needs Assessment report, required to be carried out by the Safe and Affordable Funding for Equity and Resilience (SAFER) program (discussed further in Section 10.5, *Assistance Programs*), provides foundational information regarding water systems in DACs, including SDACs. Figure 10-2 shows the distribution of failing, at-risk, and potentially at-risk public water systems within the study area based on information from the State Water Board's 2023 Drinking Water Needs Assessment (^SWRCB 2023a). Figure 10-2 illustrates that multiple failing, at-risk, and potentially at-risk public water systems are in the Sacramento/Delta watershed and other study area geographic regions. (The "not assessed" category included in Figure 10-2 represents large community water systems with service connections greater than 30,000, or population served greater than 100,000. It also includes wholesalers.) The analysis of the risk assessment results presented in the 2023 Drinking Water Needs Assessment indicates the majority (86 percent) of at-risk water systems are small water systems with 3,000 service connections or less (^SWRCB 2023a).

In addition, the 2023 Drinking Water Needs Assessment found that, when compared with non-DAC/SDAC public water systems, DAC/SDAC water system service areas tend to have 2.7 percent higher pollution burdens, 22 percent higher percentage of households in poverty, and 4.9 percent higher percentage of limited English-speaking households, and are 8.2 percent more likely to serve a greater proportion of non-white communities. Approximately 23 percent of systems that serve DACs or SDACs face a medium-to-high affordability burden. In contrast, only about 9 percent of systems that serve non-DACs do.

The 2023 Drinking Water Needs Assessment also found that state small systems and domestic wells, which fall under county jurisdiction and are not regulated by the state, faced both water quality and water shortage risks in 2022, largely from dropping groundwater levels. The counties with the highest number of domestic wells in high water quality risk areas include Fresno, Sonoma, San Joaquin, and Madera Counties. The counties with the highest number of state small water systems in high water quality risk areas include Monterey, Kern, Riverside, and Santa Clara Counties. Statewide, the top contaminants that contributed to higher risk designations in domestic wells and state small water systems are nitrate, arsenic, 1,2,3-trichloropropane, gross alpha, uranium, and hexavalent chromium.

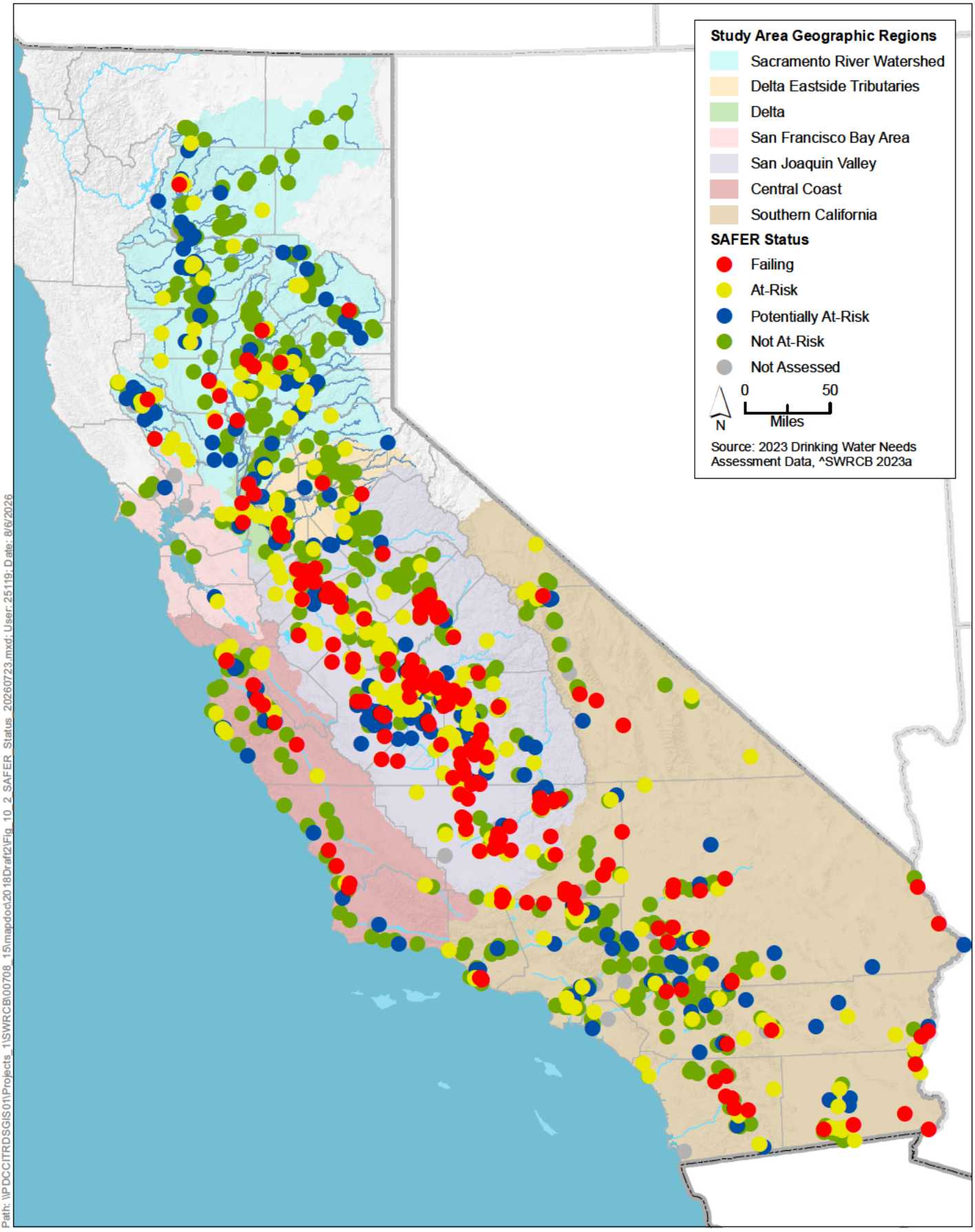

Figure 10-2
2023 Drinking Water Risk Assessment -
Status of Disadvantaged and Severely Disadvantaged Communities

Figure 10-3 shows the locations of DACs and SDACs in the study area with high and medium water quality risk levels, based on information from the 2023 Drinking Water Needs Assessment. Section 2.8, *Existing Water Supply*, provides additional discussion of DACs in the study area.

10.3 Regulatory Background

Relevant federal and state programs, policies, plans, or regulations related to DACs and water supplies are described in this section.

10.3.1 Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA) was passed in 1974, with amendments added in 1986 and 1996, to protect the quality of drinking water in the United States (42 U.S.C. § 300f et seq.). The SDWA requires many actions to protect drinking water and its sources—rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA authorizes the U.S. Environmental Protection Agency to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary standards (USEPA 2004).

In 2016, the State Water Board succeeded the California Department of Public Health as the agency implementing the SDWA and California Safe Drinking Water Act (Health & Saf. Code, § 116271). Through its Division of Drinking Water (DDW), the State Water Board provides regulatory oversight of public water systems to ensure the delivery of safe drinking water to all Californians. DDW issues operating permits, reviews plans and specifications for new facilities, funds infrastructure improvements, evaluates projects that utilize recycled treated wastewater, and assists public water systems in drought preparation and water conservation.

10.3.2 Human Right to Water

In 2012, Governor Brown signed Assembly Bill (AB) 685, making California the first state in the nation to recognize the human right to water. Now in the Water Code as section 106.3, the state statutorily recognizes that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." The human right to water extends to all Californians, including disadvantaged individuals and groups and communities in rural and urban areas.

On February 16, 2016, the State Water Board adopted Resolution 2016-0010 identifying the human right to water as a top priority and core value of the State Water Board and regional water boards (SWRCB 2016). The resolution directs the State and regional water boards to work "to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations." The resolution cements the Water Boards' commitment to considering how its activities affect and advance the human right to safe, clean, affordable, and accessible water to support basic human needs. The human right to water will be considered in actions taken by the Water Boards that pertain to sources of drinking water. These actions may include revising or establishing water quality control plans, policies, and grant criteria; permitting; site remediation and monitoring; and water right administration.

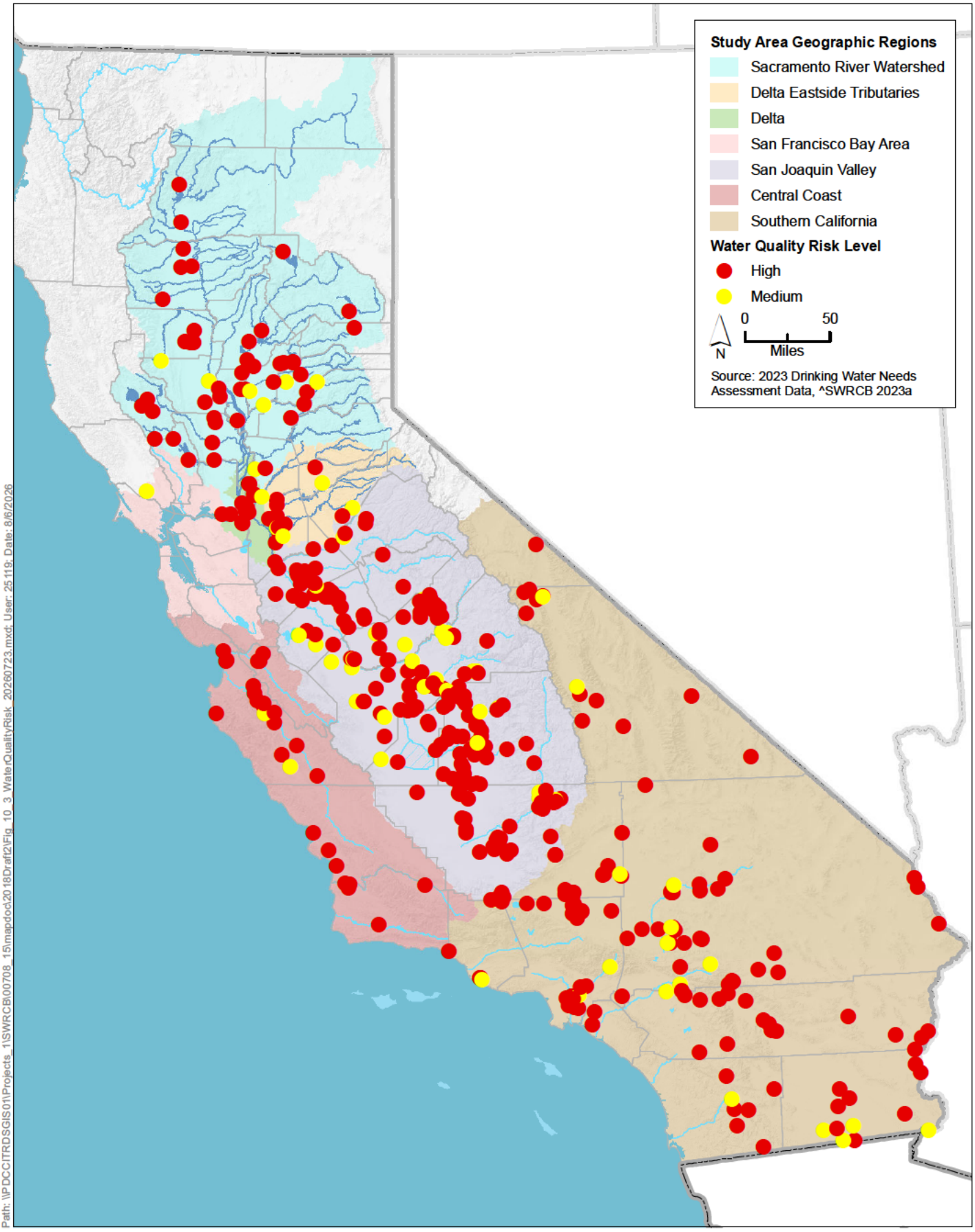

Figure 10-3
2023 Level of Water Quality Risk Assessment -
Status of Disadvantaged and Severely Disadvantaged Communities

Under Resolution 2016-0010, Water Board staff will work with relevant stakeholders, as resources allow, to develop new systems or enhance existing systems to collect data and identify and track communities that do not have, or are at risk of not having, safe, clean, affordable, and accessible water for drinking, cooking, and sanitary purposes. Water Board staff will also work with relevant groups to develop performance measures to evaluate the Water Boards' progress toward making the human right to water a reality and to make that information publicly available.

10.3.3 Sustainable Groundwater Management Act

In 2014, former Governor Brown signed into law a three-bill legislative package establishing the Sustainable Groundwater Management Act (SGMA) and related provisions to address ongoing unsustainable groundwater use in California's alluvial groundwater basins and the physical, societal, and environmental consequences of that over-extraction, including overdraft. SGMA redefined groundwater sustainability as the "management and use of groundwater in a manner that can be maintained during the [50-year SGMA] planning and implementation horizon without causing 'undesirable results.'" (Wat. Code, § 10721 subd. (v).) Under SGMA, undesirable results occur when one of the following effects become "significant and unreasonable": chronic lowering of groundwater levels indicating a depletion of supply, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletions of interconnected surface waters that affect beneficial uses of surface waters (Wat. Code, § 10721 (x)).

SGMA tasks local agencies in basins designated as high and medium priority and subject to the Act to halt overdraft and balance levels of pumping and recharge to avoid undesirable results. SGMA requires those local agencies to form groundwater sustainability agencies (GSA) to develop, adopt, and implement groundwater sustainability plans (GSP). SGMA requires GSAs to consider the interests of all beneficial uses and users of groundwater, including DACs and including, but not limited to, those served by private domestic wells or small community water systems. GSAs are required to begin implementing their plans as soon as they are adopted locally, and these activities will continue even if basins are under state intervention. GSPs will help local agencies address conditions that negatively affect groundwater within 20 years, such as groundwater overdraft, degraded groundwater quality, land subsidence, and impacts on drinking water well users.

In the 2012–2016 drought, at least 2,600 well-dependent households in California faced drinking water shortages, while more than 150 water systems applied for emergency state funding to address supply and quality problems. The drought highlighted the need for GSAs to incorporate measures in their plans to mitigate the risk of wells running dry from local pumping (PPIC 2021).

10.3.4 State Water Board's Racial Equity Resolution and Racial Equity Action Plan

The State Water Board Resolution 2021-0050, also known as the *Racial Equity Resolution*, commits to making racial equity, diversity, inclusion, and environmental justice central to the State Water Board's work (SWRCB 2021). The Racial Equity Resolution reaffirms the State Water Board's commitment to upholding California's human right to water law; upholding the State Water Board's human right to water resolution; and demonstrating that every human being in California deserves safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation purposes. The Racial Equity Resolution also condemns acts of racism, xenophobia, bigotry, white supremacy, and systemic or institutional racism; adopts racial equity, diversity, and

inclusion as core values; and acknowledges the role of government agencies (including the Water Boards) in redressing racial inequities and dismantling institutional and systemic racism.

The Racial Equity Resolution also directed State Water Board staff to develop and implement a Racial Equity Action Plan that articulates a vision for racial equity. The Racial Equity Action Plan is a compilation of goals, actions, and metrics intended to advance efforts to create a future where we equitably preserve, enhance, and restore California's water resources and drinking water for all Californians, regardless of race (SWRCB 2023). After 2 years of implementing the Racial Equity Action Plan, the State Water Board will reinitiate a public engagement process that will include reengaging the public and tribes to reflect on accomplishments, hear feedback on emerging priorities, and develop actions for the next 3 years. Future iterations will be developed in collaboration with communities affected by racial injustices.

10.3.5 Assembly Bill 2108 (2022)

Assembly Bill 2108 (AB 2108) was approved by Governor Newsom in September 2022. Among other things, it specifies that the State Water Board and regional water boards should begin outreach to identify issues of environmental justice as early as possible in the planning, policy, and permitting processes. AB 2108 requires the State Water Board and each regional water board to hire environmental justice and tribal community coordinator positions for specified purposes. This bill also requires the State and regional water boards to make findings on potential environmental justice, tribal impact, and racial equity considerations when adopting state policies for water quality control and water quality control plans, and when issuing waste discharge requirements or waivers of waste discharge requirements.

10.3.6 Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All

On April 21, 2023, President Biden issued an executive order (EO) to enhance the Nation's environmental justice efforts. The EO focuses on the importance of providing clean air, clean water, and healthy food to every person in the United States. It acknowledges that communities with environmental justice concerns face disparities that are often the results of legacy racial discrimination and segregation, and it emphasizes the need for an inclusive and equitable economy while removing remnants of discrimination for people and communities. The EO directs federal agencies to address inequities in environmental hazards through interagency coordination; community engagement; and advancement in science, data, and research. The EO also creates a new Environmental Justice Subcommittee within the National Science and Technology Council to work with the Air Quality and Community Health Research Subcommittee to improve the resilience of underserved and marginalized communities to environmental and health impacts of pollution and climate change. This EO is intended to build upon previous EOs related to racial equity, climate change, infrastructure and sustainability (E.O. 14096).

10.4 Issues of Concern for DACs

This Staff Report evaluates the environmental impacts and economic effects of several alternatives for the Sacramento/Delta update, including proposed Plan amendments, proposed Voluntary Agreements (VAs), and other alternatives. Chapter 7, *Environmental Analysis*, evaluates the

environmental impacts of the proposed Plan amendments on various environmental resource areas. The environmental setting and impact analyses contained in Chapter 7 discuss several issues of concern relevant for DACs. Chapter 9, *Proposed Voluntary Agreements*, evaluates the environmental impacts of the proposed VAs on various environmental resource areas. Chapter 13, *Revised Proposed Plan Amendments*, evaluates the environmental impacts of the revised proposed Plan amendments on various environmental resource areas.

A summary of the other sections and chapters in this Staff Report that discuss issues of concern for DACs is presented below.

- Section 2.8, *Existing Water Supply*, provides additional overview information related to DACs in the study area.
- Sections 7.12.1, *Hydrology and Water Quality – Surface Water*, 9.7.12.1, *Hydrology and Water Quality – Surface Water*, and 13.7.12.1, *Hydrology and Water Quality – Surface Water*, discuss several surface water quality issues relevant to DACs, such as harmful algal blooms, and potential environmental impacts related to changes in municipal water supplies. Section 7.12.1 discusses several mitigation measures relevant to DACs, such as mitigation to protect municipal water quality. Specifically, the State Water Board's Division of Drinking Water (DDW) will continue to require public water systems to comply with regulations to implement the SDWA, including applicable permit conditions. DDW will also continue to inspect water systems, track and monitor for compliance, and take appropriate enforcement action if needed. In addition, the State Water Board will continue to implement funding programs for various types of assistance projects that (1) provide interim access to safe water sources; (2) contract or provide a grant to an administrator to address or prevent failure to provide safe and affordable drinking water; (3) improve water delivery infrastructure; (4) provide technical assistance to disadvantaged communities; (5) consolidate systems; and (6) fund operation and maintenance for disadvantaged and low-income communities.
- Sections 7.12.2, *Hydrology and Water Quality – Groundwater*, 9.7.12.2, *Hydrology and Water Quality – Groundwater*, and 13.7.12.2, *Hydrology and Water Quality – Groundwater*, discuss that communities that rely on groundwater for drinking water supply face challenges from declining groundwater levels, with dry wells occurring in some areas during prolonged drought periods. Numerous DACs are wholly reliant on groundwater for their water supply. Communities that rely on groundwater for drinking water supplies in the San Joaquin Valley region have been facing challenges from declining groundwater levels under baseline conditions, with critical shortages or dry wells occurring in some areas during prolonged drought periods. Section 7.12.2 discusses mitigation measures relevant to DACs for drinking water impacts from lowered groundwater levels that may address some of the supply issues faced by DACs. The State Water Board will also continue its commitment to the human right to water through financial assistance, technical assistance, consolidations, SGMA oversight, and other means, including for communities that may be affected by reduced groundwater supplies or groundwater quality concerns.
- Sections 7.20, *Utilities and Service Systems*, 9.7.20, *Utilities and Service Systems*, and 13.7.20, *Utilities and Service Systems*, discuss that DACs that rely solely on groundwater often disproportionately experience impacts on their drinking water supplies. Their groundwater wells are often shallower and thus are more susceptible to water quality issues or the risk of going dry if the groundwater level is lowered. SGMA implementation may address some of the supply issues faced by DACs, depending on how GSPs are developed and how GSAs consider

impacts on DAC water users from local groundwater management actions. While the public water systems serving DACs are still required to maintain essential resources and meet public health requirements, these systems are less likely to have the resources (e.g., infrastructure and financing) to respond adequately to water supply or water quality emergencies. The cost of redrilling wells and retrofitting groundwater pumps may be prohibitive for DACs. The costs for treatment to remove pollutants from groundwater would be considerable and would negatively affect DACs. Section 7.20 discusses relevant mitigation measures and that the State Water Board will continue its commitment to the human right to water through financial assistance, technical assistance, consolidations, and other means, including for communities that may be affected by reduced groundwater supplies or groundwater quality concerns.

- Section 7.23, *Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes*, discusses cumulative impacts associated with the proposed Plan amendments and Low Flow and High Flow Alternatives together with other projects (and programs) that could cause related impacts. Section 7.23 discusses that reduced Sacramento/Delta supply could also result in potentially significant impacts related to lower groundwater levels and groundwater quality from (1) increased groundwater pumping as a substitute supply (where available and not locally restricted); and (2) reductions in applied irrigation water, including from increased water use efficiencies, which would reduce incidental groundwater recharge. Lower groundwater levels could reduce groundwater available for agricultural use and could affect water supplies for communities that rely on groundwater as their primary municipal water source, including DACs. Lower groundwater levels could affect groundwater quality and potentially affect drinking water wells in some areas. Lower groundwater levels could have localized effects on groundwater quality by concentrating pollutants where groundwater contamination already exists. Additionally, in some locations, lower groundwater levels may concentrate salts and nutrients in groundwater over time through evaporative enrichment. Section 9.7.21, *Cumulative Impacts, Growth-Inducing Effects, and Significant Irreversible Environmental Changes*, describes the cumulative impacts associated with the proposed VAs together with other projects and programs that could cause related impacts. Section 13.7.21, *Cumulative Impacts, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes*, describes the cumulative impacts associated with the revised proposed Plan amendments together with other projects and programs that could cause related impacts.
- Chapter 8, *Economic Analysis and Other Considerations*, discusses economic effects of the proposed Plan amendments, including economic effects relevant to DACs. This chapter also summarizes potential sources of funding for municipal water supply and conservation. A variety of programs are available to provide funding for increased water conservation by both agricultural and urban users in California. Municipal water providers are often eligible to secure funding from public and private sources for water conservation initiatives and measures. These sources include grants; single-purpose appropriations from federal, state, and/or local legislative bodies; municipal bond indebtedness; and low-interest loans from government institutions. Section 13.8, *Economic Analysis and Other Considerations*, discusses economic effects of the revised proposed Plan amendments, including economic effects relevant to DACs.

10.4.1 Harmful Algal Blooms

Harmful algal blooms (HABs) pose a range of impacts to DACs. HABs reduce opportunities for safe recreation in local water bodies. This is particularly challenging for residents in DACs during hot

summer months, when HABs are more likely to be present. The presence of HABs can also have negative effects on tourism and the value of property and can create health risks and reduce food supply for subsistence fishers. Delta residents have also expressed concerns to State Water Board staff regarding impacts on air quality due to HABs. For more information on HABs, including the effect of HAB species on aquatic life, the drivers for HABs, and HAB monitoring programs, please see Section 4.3.2, *Harmful Algal Blooms*.

The State Water Board is committed to supporting actions to address HABs. These include supporting science, research, monitoring, and special studies that are needed to develop HAB-predictive models and identify possible management and mitigation measures that could be used to control HABs in the Delta, in addition to supporting incident response and other actions to address HABs. These commitments are described in Section 5.6.1.3, *Proposed Changes to Monitoring, Assessment, Special Studies, and Reporting* and Section 13.3.9.2, *Harmful Algal Blooms*.

10.5 Assistance Programs

This section discusses various financial and technical assistance programs available to assist public water systems serving DACs. These programs are designed to ensure access to safe, clean, and affordable water supplies and maintain compliance with all applicable water laws and regulations. The State Water Board is at the forefront of assisting DACs with obtaining clean, safe, and reliable water supplies. In doing so, the State Water Board is making its commitment to the human right to water through financial assistance, technical assistance, consolidations, SGMA oversight, and other means.

10.5.1 Financial Assistance

Multiple funding sources are available to assist communities with obtaining clean, safe, and reliable water supplies. A brief description of some applicable funding programs is included here.

The State Water Board works with local, state, and federal partners to provide financial assistance to at-risk drinking water systems. This includes a broad range of funding sources for new wells, interties, and emergency drinking water supplies. Through Propositions 50 and 84, the State Water Board has provided funding for projects intended to improve water security, as well as infrastructure improvement and groundwater quality projects, and emergency and urgent funding for projects that ensure safe drinking water supplies.

10.5.1.1 Small Community Funding Program

The State Water Board's Office of Sustainable Water Solutions is focused on addressing financial and technical assistance needs, particularly for SDACs through the Small Community Funding Program. The Small Community Funding Program is available to help SDACs, providing technical assistance needs and interim water supplies to providers of drinking water service to less than 10,000 people or wastewater service to less than 20,000 people with an MHI of less than 80 percent of the statewide MHI. In addition, the Small Community Funding Program implements eligible drinking water or wastewater capital improvement projects.

10.5.1.2 Drinking Water State Revolving Fund

The State Water Board's Division of Financial Assistance administers the Drinking Water State Revolving Fund (DWSRF), which assists public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with SDWA requirements. Established by an amendment to the federal SDWA in 1996, the DWSRF provides low-interest loans, additional subsidy (principal forgiveness), and technical assistance to public water systems for infrastructure improvements to correct system deficiencies and improve drinking water quality for the health, safety, and welfare of all Californians. Eligible applicants include publicly owned water systems (e.g., counties, cities, districts), privately owned community water systems (e.g., for-profit water utilities, nonprofit mutual water companies), and nonprofit or publicly owned noncommunity water systems (e.g., public school districts). Eligible projects include the planning, design, and construction of drinking water infrastructure projects, including treatment systems, distribution systems, interconnections, consolidations, pipeline extensions, water sources, and water meters.

10.5.1.3 Safe and Affordable Drinking Water Fund

In 2019, Governor Newsom signed Senate Bill (SB) 200, which establishes the Safe and Affordable Drinking Water Fund that provides $130 million annually to address funding gaps and provide solutions to water systems, especially those serving DACs, to address both their short- and long-term drinking water needs. The money may be spent on operations and maintenance costs, cost of consolidating with larger systems, provision of replacement water, and funding for administrators to run small systems.

This fund also established the Safe and Affordable Funding for Equity and Resilience (SAFER) program, a set of tools, funding sources, and regulatory authorities designed to ensure that all Californians have access to safe, affordable and reliable drinking water. The SAFER program also aims to reach sustainable operations for all the state's drinking water systems, support permanent and sustainable drinking water solutions, and is a critical element for achieving the goals of safe, accessible, and affordable water for all Californians.

10.5.1.4 Technical Assistance Funding Program

The State Water Board's Office of Sustainable Water Solutions (OSWS) administers the Technical Assistance (TA) Funding Program. The TA Funding Program is available to help small DACs develop, fund, and implement eligible drinking water, wastewater, storm water, or groundwater needs. The TA Funding Program includes, but is not limited to, coordination and development of capital improvement projects and facilitation of operation and maintenance, engineering and environmental analysis, legal assistance, leak detection/water audits, compliance audits, financial analysis, technical managerial and financial assessments, and board or operator training.

10.5.2 Technical Assistance

Complying with state and federal drinking water regulations is essential for protecting public health and ensuring safe drinking water. Many technical assistance programs are designed to assist agencies implementing water supply and water quality projects. These programs are designed to ensure access to safe, clean, and affordable water supplies and maintain compliance with all

applicable water laws and regulation. The state is committed to identifying and monitoring the status of drought-vulnerable public water systems to help prevent or mitigate any anticipated shortfalls in supply and to secure alternative sources of water for the communities when needed. In 2013, the State Water Board released a report to the California Legislature entitled *Communities That Rely on a Contaminated Groundwater Source for Drinking Water* that identified communities that rely on contaminated groundwater as a primary source of drinking water, principal contaminants and other constituents of concern, and potential solutions and funding sources (^SWRCB 2013). The state also works with local governments and agencies to identify drought-vulnerable areas served by domestic wells and collaborate to prevent or mitigate any anticipated shortfalls.

The State Water Board provides technical assistance to DACs and at-risk drinking water systems and works with the water systems to identify potential solutions. State technical assistance programs provide help with preparing financial assistance applications; performing compliance audits; reviewing proposed projects alternatives; planning and preparing budgets; and performing community outreach, awareness, and education. DWSRF- and Proposition 1-eligible projects can assist publicly owned water systems (e.g., counties, cities, districts), privately owned community water systems (e.g., for-profit water utilities, non-profit mutual water companies), and non-profit or publicly owned non-community water systems (e.g., public school districts) with the planning/design and construction of drinking water infrastructure projects that will improve the community's water efficiency and ensure a drought-resilient water supply. Potential solutions include, but are not limited to, stringent conservation measures, interconnections with other water systems (i.e., consolidation), development of new water sources, expansion of existing sources (e.g., deepen wells, extend reservoir intakes), and treatment of sources that produce water that does not meet drinking water quality standards. Locally implemented cost-effective and technically feasible strategies include urban and agricultural water conservation and efficiency, water reuse and recycling, and storm water capture. Triggers and responses are developed and implemented at the local level.

Sometimes, the best solution for ensuring a safe drinking water supply is for a small, failing water system to join a larger public water system. SB 88 authorizes the State Water Board to require public water systems that consistently fail to meet standards to consolidate with, or obtain service from, a public water system. Consolidating public water systems and extending service from existing public water systems to communities and areas that currently rely on under-performing or small failing water systems, as well as domestic wells, reduces costs and improves reliability (^SWRCB 2015).

10.6 References Cited

10.6.1 Common References

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