Understanding the Water Needs of Underrepresented Californians Through Integrated Regional Water Management



Summary Report

of the

Proposition 1 IRWM Disadvantaged Communities and Tribal Involvement Grant Program

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Acronyms and Abbreviations

ACS	American Community Survey
CABY	Consumnes/American Bear/Yuba
CEJST	Climate and Economic Justice Screening Tool
CEQA	California Environmental Quality Act
CIEA	California Indian Environmental Alliance
CNRA	California Natural Resources Agency
CVP	Central Valley Project
CWC	California Water Code
CWP	California Water Plan
DAC	Disadvantaged Community
DACTI	Disadvantaged Communities and Tribal Involvement
DWR	Department of Water Resources
EDA	Economically Distressed Area
EIR	Environmental Impact Report
ELAP	Environmental Laboratory Accreditation Program
GIS	Geographic Information System
GLAC	Greater Los Angeles County
GPS	Global Positioning System
GWMP	Groundwater Management Plan
IRWM	Integrated Regional Water Management
MAC	Mokelumne/Amador/Calaveras
MCL	Maximum Contaminant Level
MHI	Median Household Income
MS4	Municipal Separate Storm Sewer System
MTBE	Methyl Tert-butyl Ether
NEPA	National Environmental Policy Act
O&M	Operation and Maintenance
OPR	The Governor's Office of Planning and Research
PCE	Perchloroethylene
PSP	Proposal Solicitation Package
RAP	Region Acceptance Process
RWMG	Regional Water Management Group
SAFER	Safe and Affordable Funding for Equity and Resilience
SB	Senate Bill
SDAC	Severely Disadvantaged Community
SF	San Francisco
SGMA	Sustainable Groundwater Management Act
SLR	Sea-Level Rise
SWOT	Strengths, Weaknesses, Opportunities, and Threats
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAC	Tribal Advisory Committee
TCE	Trichloroethene
TCP	Trichloropropane
TEK	Traditional Ecological Knowledge
UC	University of California
URC	Underrepresented Communities
USCR	Upper Santa Clara River
WASH	Water, Sanitation, and Hygiene
WCVC	Watersheds Coalition of Ventura County
WMA	Watershed Management Area
WRI	World Resources Institute
WUEB	Water Use and Efficiency Branch

Executive Summary

This report presents the key outcomes and findings of the Department of Water Resources (DWR) Disadvantaged Community and Tribal Involvement (DACTI) Program which addresses the needs of underrepresented communities throughout the state. Funded by Proposition 1 Integrated Regional Water Management (IRWM) Program, which allocated approximately $52 million to support these efforts, the DACTI Program has made significant strides in engaging disadvantaged communities and California Indian Tribes (Tribes) in regional water planning. Although there are ongoing grants within this program, it is expected to conclude in 2026. There remains, however, a clear need for continued efforts to address ongoing water management challenges in these communities. The purpose of this report, therefore, is to highlight the key findings and recommendations of the program in order to better inform future legislative, policy and resource decision making.

The DACTI Program originated from the IRWM Planning Act of 2002, which encouraged regional collaboration for sustainable water management in California. Proposition 1, passed by the voters in 2014, dedicated funding to ensure involvement of underrepresented communities, recognizing that many lacked the resources to participate in water management decisions. In 2016, DWR launched the Proposition 1 Disadvantaged Community Involvement (DACI) Grant Program. The program name was later broadened to "Disadvantaged Community and Tribal Involvement" (DACTI) to acknowledge the sovereignty of California Indian Tribes.

The program's objectives were to help IRWM regions engage with disadvantaged communities and California Indian Tribes, assess their water needs, and build their capacity to manage water resources sustainably. The 12 Proposition 1 funding areas which received funding from this program, encompassing California's 48 established IRWM regions, were tasked with conducting needs assessments, providing technical assistance, and developing water management projects to address these identified needs.

Key Successes

- The DACTI Program resulted in greater involvement of historically marginalized communities and Tribes in IRWM processes, fostering new relationships and expanding project development.

- Regional partnerships with community organizations leveraged existing trust, improving outreach and capacity building efforts.
- Technical assistance and training helped build and enhance local technical, managerial, and financial capabilities.
- Progress was made in strengthening Tribal participation in regional water management decision making and projects, with a focus on recognizing California Indian Tribes as sovereign entities, including in State contracting processes.
- Outreach was conducted to certain community members, such as unhoused individuals, who were traditionally excluded from community needs assessments.

Findings

- Underrepresented Communities Share Common Challenges and Needs.
- Long-term Reliable Resources Are Required to Build Capacity.
- Barriers to Equitable Inclusion Must Be Addressed.
- Tools for Identifying Marginalized Communities Need to Be Updated.
- State Funding Models Must Distribute Funding Equitably.
- State Financial Assistance Programs Need to be More Accessible.
- State Financial Assistance Programs Need to be Better Coordinated.
- Meaningful Tribal Engagement Requires Early, Sustained Tribal Engagement, Trust, and Structural Flexibility

The findings of the DACTI Program underscore the importance of continued support and funding to ensure equitable involvement in water management for all Californians, particularly underrepresented communities and Tribes.

Introduction

The passage of the Integrated Regional Water Management (IRWM) Planning Act in 2002 (SB 1672) ushered in a new era of collaborative partnerships to sustainably manage water resources on a regional scale in California. Twelve years later, Proposition 1 allocated a minimum of $52 million in dedicated funding to the California Department of Water Resources (DWR) to identify and study the needs of communities in the state which were traditionally underrepresented in regional water management and begin addressing those needs through technical assistance and development of IRWM projects to more directly benefit those communities (Water Code Section 79745). The impetus for the Proposition 1 dedicated funding to this cause was a series of recommendations born from pilot projects conducted in representative disadvantaged communities throughout the state between 2009–2011 with DWR Proposition 84 grants. Also, as a result of IRWM strategic planning workshops conducted by DWR throughout the state between 2010–2013, recommendations emerged to better serve the needs of underrepresented communities (URC)[1]. Appendix A presents timelines showing key milestones in the 20-year history of IRWM.

As directed by Proposition 1, DWR established the Disadvantaged Community Involvement Program (DACI Program) in 2016 and awarded nearly $52 million in grants to 12 designated Proposition 1 funding areas, each comprised of one or more of the State's 48 IRWM regions. In 2020, the DACI Program was expanded — to reflect the progression and input of the Tribal interests — and renamed the Disadvantaged Community and Tribal Involvement (DACTI) Program, which will be used in this document. These 12 funding areas include 99 percent of California's population and 87 percent of the state's land area (source: IRWM Roundtable of Regions' website, www.roundtableofregions.org). The DACTI Program is designed to ensure the "involvement of Disadvantaged Communities, Economically Distressed Areas, or underrepresented communities within Regions" (Water Code Section 79745). This has created the opportunity to identify, assess the needs of, and develop projects in partnership with communities

[1] The term "underrepresented communities" was introduced by Proposition 1 but was not defined in the legislation text. For the purposes of the DWR DACTI Program and this report, "underrepresented communities" broadly includes Disadvantaged Communities, Severely Disadvantaged Communities, and Economically Distressed Areas, as defined by statute; all California Indian Tribes, regardless of federal recognition; minority communities; and other residents facing water resource risks, such as unhoused individuals.

traditionally underrepresented in regional water planning efforts, including California Indian Tribes (regardless of federal recognition).

The DACTI Program reinforces a key aspect of IRWM: providing State technical and financial assistance to support planning and projects that emerge from collaborative decision-making on regional priorities. By doing so, the DACTI Program helps ensure that all interested parties can participate in the planning process, ensuring that regional priorities, goals, and projects reflect the broad and diverse perspectives of California communities. Through the outreach and engagement activities conducted by the DACTI Program (see timeline highlights in Appendix B), Regions have been empowered to build stronger connections between newly engaged communities and established Regional Water Management Groups, creating unexpected synergies and learning opportunities. Regional Water Management Groups or RWMG are groups of three or more local agencies, at least two of which have statutory authority over water supply or water management, as well as those persons who may be necessary for the development and implementation of an IRWM Plan that meets the requirements in Water Code §10540 and §10541.

Ultimately, this improved coordination is lending itself to the development of regional projects that are more responsive to broader community interests and watershed challenges. Over time, there has been an increase in designated set-aside funding in legislation to guarantee a minimum amount of funding for URCs. Since 2010, almost $367 Million has been awarded through Propositions 84 and 1, making almost 350 projects possible (see Appendix D for a summary of State investments in IRWM to address the needs of URCs and Tribes). This report presents high-level summaries of the regional needs assessments completed to date, as well as findings and recommendations drawn from across the DACTI Program, to inform future policy and legislation. This report also includes the findings and recommendations of the three statewide DACTI Summit Meetings, held in 2018, 2020, and 2024 (Appendix E). These summits were opportunities for State staff, IRWM practitioners, Tribal leaders and members, scholars, and community-engaged partners to gather and collaborate over shared goals.

In the results available, the needs assessments demonstrate a broad spectrum of need shaped by the unique geography, demography, water resource conditions, and land use of each region. Examples of critical water management issues faced by the Regions profiled in this report include groundwater depletion, compromised environmental water quality, and

aging, deficient, or nonexistent infrastructure for conveyance of drinking water or stormwater. The State Water Board's drinking water needs analyses published under the SAFER program represent a more focused, but complementary, effort to the work presented here.

More resources and legislative and policy changes are needed to address the challenges and opportunities reflected in this report. In particular, continued resources will help build the technical, financial, and managerial capacity of underrepresented communities to allow for meaningful involvement and direct benefit from regional water management into the future. Without continued funding for engagement and project development, the relationships and active engagement of California Indian Tribes and communities in regional water planning gained by these efforts will be difficult to maintain (and in some instances, lost) when the remaining Proposition 1 funding for the DACTI Program is exhausted. Two decades of accomplishments and return on investment in IRWM make it clear that technical and financial assistance from the State can make a critical difference when supporting all interested parties to develop shared solutions.

Overview of DWR's Disadvantaged Communities and Tribal Involvement Program

The DACTI Program was intended to give the IRWM regional groups the initial tools to identify and engage with members of underrepresented communities in their funding areas, assess their water management needs, and assist them in building their community capacity to sustainably manage water resources. Additionally, the DACTI Program helped these communities identify and develop projects to address their unique water management needs and make them eligible for State and federal funding.

It should be noted that ensuring that members of all communities are involved in the formation of partnerships, development of plans and strategies, and implementation, operation, and maintenance of projects, is itself a resilience strategy. Stronger communities bring resilience.

The DACTI Program included the following primary objectives to ensure involvement of underrepresented communities:

- **Increase involvement of Underrepresented Communities in IRWM planning:** Work with State agencies and IRWM Regional Water Management Groups to expand opportunities for underrepresented

communities to have access and participation in established IRWM planning and decision-making processes.

- **Assess and document needs:** Assess the water management needs of underrepresented communities and incorporate into a needs assessment report.
- **Create opportunities:** Develop long-term solutions to address the identified water management needs of Underrepresented Communities.

Program Grantees and Funding Allocations

Proposition 1 designated 12 funding areas, as shown in Figure 1. There are 48 self-defined, and State accepted, IRWM regions (Regions) (location map in Appendix C) in California, all of which fall into at least one funding area, with some Regions split between multiple funding areas. For the purposes of the DACTI Program, Regions located in more than one funding area had the option to participate in multiple funding areas or to invest their resources working with one funding area. Additionally, Tribal communities and traditional lands often overlap multiple Regions or funding areas, enabling a similar choice about participation in this grant program. The Regions who are geographically located in more than one funding area because of boundaries are also listed on more than one funding area map (as shown in the subsequent section) even if they chose to fully invest their resources in one funding area.

Proposition 1 allocated $510 million in IRWM funding to the 12 funding areas based largely on population, and DWR provided grants to a single grantee representing each of those funding areas according to those allocations. The Proposition 1 allocation resulted in some rural funding areas receiving a share of the funding that wasn't necessarily proportionate to the types of communities they serve. Future legislation should consider additional factors for funding allocations, so that rural communities, particularly those in headwater areas (i.e., Mountain Counties or Northern California) where much of the water supply for California originates, or those where groundwater issues are prevalent, receive funding commensurate with needs.

Figure 1. Proposition 1 Funding Areas



Program Components

Outreach and Engagement

Given the diversity of communities and regions in California, outreach and engagement has looked different in every funding area, benefiting from the flexibility allowed under the DACTI Program. Funding areas are free to conduct outreach based on the demands and resources in their communities. Many Regions have chosen to work with local nonprofits and community-

based organizations that can leverage established relationships within the communities as a way to conduct outreach and engagement activities most effectively.

The DACTI Program was created for the express purpose of proactively engaging previously excluded groups such as California Indian Tribes. There are more than 170 California Indian Tribes, 109 of which are federally recognized. California Indian Tribes have historically been excluded from natural resource planning and water management decisions. Pursuant to the California Natural Resources Agency Tribal Consultation Policy and DWR's Tribal Engagement Policy, it is recognized that California Indian Tribes have sovereign authority over their members and territories, whether federally recognized or not. DWR recognizes California Native American Tribes as sovereign governments which require State agencies to engage in government-to-government consultation. DWR is committed to practicing open, inclusive, and regular communication to recognize and understand Tribes' needs and interests.

The first step in supporting DACs and Tribes in addressing water challenges is identifying both their needs and existing strengths. DACs and Tribes possess valuable knowledge, practices, and lived experience that have historically been underrecognized and underutilized. Effective engagement with these communities requires learning from and building upon these strengths.

This report provides a statewide snapshot of water-related needs in disadvantaged communities and Tribes and serves as a foundation for delivering technical assistance and funding to support projects that improve water and wastewater systems.

Needs Assessments

A requirement of the DACTI Request for Proposal document was that each funding area conduct a needs assessment. Starting with the template provided by DWR, funding areas adapted their assessments to account for conditions affecting their individual Regions and available resources. Some Regions also emphasized the strengths in their communities that need to be taken into account when developing programs and projects to address their needs. Therefore, there is not a uniform standardization of the data collection and assessment protocols employed. This report is intended to highlight the key findings and results of the needs assessments.

The needs assessments completed for the DACTI Program are high-level, broad-based assessments. In contrast, the needs analyses completed by UC Davis for the 2021 Drinking Water Needs Assessment and updated in 2022 for the State Water Resources Control Board as part of their Safe and Affordable Funding for Equity and Resilience (SAFER) program were conducted following rigid protocols and are focused on drinking water. The SAFER program is at the forefront of California's commitment to the human right to water for all Californians (Water Code Section 106.3), to ensure that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."

Project Development and Implementation

In addition to the individual DACTI needs assessments by funding area, most funding areas included a project development or technical assistance element in their grant agreement. The specifics of these elements varied based on the needs and interests of each funding area. The needs assessments were often used as guides to the type of assistance and support that would be most beneficial to communities preparing to apply for Proposition 1 implementation funding. Implementation funding is being used for projects that address some of the needs identified through the DACTI Program.

California Indian Tribes and IRWM

The involvement of California Indian Tribes in IRWM varies across the state. DWR has seen success in IRWM Regions that made it a priority to engage with their local Tribal communities, Tribal members, and Tribal governments. These Regions prioritized engagement, invested in Tribal liaisons or Tribal coordinators to assist in the process, and made further commitments to engage with California Indian Tribes in a governmental capacity, beyond a generalized public engagement process. In some funding areas, Tribal engagement and partnerships have become a significant part of the IRWM process and have contributed to the successes of the Regions. California Indian Tribes have been represented in some IRWM governance structures and have received project development and implementation funding. In other areas, the DACTI Program supported the first efforts to engage California Indian Tribes, and further work is needed to identify and address the needs of Tribal communities and support these engagement efforts.

Findings and Recommendations

The following are key findings and recommendations from the DACTI Program; the purpose of sharing these outcomes is to better inform the State's future legislative, policy and resource decisions.

Finding A: Underrepresented Communities Share Common Challenges and Needs

The needs assessments show that while the 12 funding areas face distinct issues, they also share certain common challenges. Additionally, several recommendations were consistent across the needs assessments.

Common Challenges:

- Need for additional project funding, technical assistance, and outreach.
- Lack of organizational (technical, managerial and financial) capacity.
- Water rate affordability for customers and operations/maintenance affordability for water operators.
- Lack of water supply reliability especially as a result of drought and climate change.
- Aging infrastructure (e.g., old pipes, wooden flumes and failing water pumping systems).
- Water quality degradation (specific contaminants varying by region).

Common Recommendations:

- Fund technical assistance and training for project development, grant writing and administration.
- Assist communities to learn about and secure additional funding (leverage State and federal funding).
- Legislation should consider allowing reimbursement of overhead and indirect costs in future funding.
- Expand disadvantaged community involvement in regional water management and governance (decision-making); and ensure

opportunities for Tribal participation and interests are included in regional water management and governance.

- Improve data gathering, analysis, and reporting in underrepresented communities to better inform water management decisions.
- Address Tribal concerns regarding data sharing, data management and transparency that respects Tribal Sovereignty and confidentiality related to cultural resources.

Finding B: Long-term Reliable Resources Are Required to Build Capacity

More time and resources are required to continue to build, foster and maintain trusted relationships and collaborative partnerships, and to implement multi-benefit projects.

Findings

- It takes many years to build trust with communities and California Indian Tribes and engage in meaningful collaboration.
- Many communities identified a need for capacity-building and technical assistance support beyond what the DACTI Program (of $52 Million) provided.
- Most federal and State funding programs tend to favor “shovel-ready” implementation projects, reinforcing inequities. Sustained funding dedicated to outreach, engagement, technical assistance, and project planning/development can make a real difference in preparing projects for implementation, especially in underrepresented communities and rural regions.
- The “digital divide” has made it difficult to engage remote and under-resourced community members, which was especially evident during the COVID-19 pandemic when most interactions previously planned as in-person events were forced to go virtual. This has created inequities in access and opportunities. Digital platforms are not always the best way to reach underrepresented communities, as many do not have the capacity or internet stability to connect this way.

Recommendations

- Secure sustained State financial assistance and leveraging of federal and other funding sources, for underrepresented communities and California Indian Tribes.
- Allocate funding for outreach, engagement, and planning (versus only funding "shovel-ready" projects, which reinforces inequities).
- Work toward building technological capacity of all communities through greater access to broadband, especially in rural areas (this became most apparent during COVID-19 pandemic).

Finding C: Barriers to Equitable Inclusion Must Be Addressed

Problematic labels, terminology, and definitions are creating barriers to equitable inclusion.

Findings

- Use of the term or label "disadvantaged community," and its associated acronym "DAC," carries a negative connotation for many communities. Use of the label may unnecessarily trigger communication and trust challenges.
- The legislative definitions for "disadvantaged community" and "severely disadvantaged community" do not appropriately capture all communities that face disproportionate burdens. The definitions do not take other factors into consideration, such as affordability of water, thereby limiting some marginalized communities' ability to benefit from these programs.
- California Indian Tribes have often been grouped under these terms and they have expressed that the terms "disadvantaged" and "underrepresented" do not adequately address their specific concerns appropriately. For example, California Indian Tribes and are not public agencies, they are sovereign entities, with which local and State agencies have a responsibility to engage on a government-to-government basis.

Recommendations

Move toward more inclusive terminology like "underrepresented communities" (URC), with broad definitions and flexibility in legislation and funding criteria *(Note: DWR's October 2020 Proposition 68 Sustainable Groundwater Management Program Proposal Solicitation Package includes such a definition. See DWR's recommendations regarding URC Nomenclature in: "Disadvantaged Communities Nomenclature Within the State of California: Findings and Conclusions — A Recommendation Document").*

- Work toward State agency alignment in URC and DAC nomenclature use and definition; and be aware of and consider similar federal efforts and reference documents for states.
- Acknowledge that California Indian Tribes are sovereign governments and may or may not accept the label of "disadvantaged" or "underrepresented."

Finding D: Tools for Identifying Marginalized Communities Need to Be Updated

Census-based tools for identifying disadvantaged communities need to be updated with community-specific demographics since many traditional tools include large margins of error and leave out segments of the population, such as California Indian Tribes.

Findings

- Using a census-based definition for DAC can leave out segments of communities. Disadvantaged and severely disadvantaged communities falling below the median household income (MHI) criteria can be intermixed with more affluent neighborhoods within the same census designation, thereby "hiding" and disqualifying such neighborhoods from receiving the benefits of the DACTI Program. Also, the census data can have large margins of error.
- Some communities and California Indian Tribes have opted to conduct and submit their own MHI surveys to document DAC and/or SDAC status for the purpose of establishing eligibility for funding. These surveys are expensive and out of reach for many under-resourced communities.

- The Santa Ana Funding Area and others held workshops or summits dedicated to this topic which resulted in increased networks and information sharing.
    - Those experiencing homelessness rarely have access to safe drinking water and sanitation, in accordance with Water Code Section 106.3, the human right to water.
    - People experiencing homelessness who live in streamside encampments can be at risk from flooding and poor water quality, and encampments can degrade flood protection, habitat, and water quality.

Recommendations

- Future legislation may consider using an alternative definition for DAC and severely disadvantaged communities (SDAC), which is based on median household income, informed by census data.
- Consider use of updated URC or DAC data and new mapping tools (e.g., federal Justice40 categories, federal Climate and Economic Justice Screening Tool (CEJST), and state heat maps).

Finding E: State Funding Models Must Distribute Funding Equitably

Traditional State Funding Allocations (e.g., Propositions 84 and 1) Based Primarily on Population Result in Inequitable or Inappropriate Distribution of Funds.

Findings

- Past bond funding allocations have been based primarily on population, resulting in less funding for rural and headwater areas where much of the water supply in the state originates. The disparity in resources was particularly evident in the DACTI grant program, where the funding areas in the northern, eastern, and mountainous parts of the state are mostly comprised of disadvantaged communities, yet they received a relatively small amount of the $52 million.
- Past funding allocations have also not considered factors such as financial need and the type, age, or condition of water infrastructure present.

Recommendations

- Regional factors should be considered in funding allocations such as water supply sources and beneficiaries, financial need, and infrastructure condition.

- Recognize that water sources often originate in mountainous, rural/non-populous areas that the rest of the state depend on, and thus further investments will benefit all Californians.

- Consider adding selection criteria (or additional points) in Proposal Solicitation Packages to score projects in alignment with the items suggested above.

- Water agencies' funding is largely restricted to providing service to customers, so community-based work (e.g. outreach) often needs alternative funding sources.

- Legislation should consider California Indian Tribes ancestral territories and areas of geographic significance transcend funding areas boundaries. Future legislation should include relevant set asides or other flexible boundaries.

- California Indian Tribes should be granted autonomy over water and environmental funding. Public funds ought to be earmarked for California Indian Tribes, allowing them to collectively decide on their allocation and utilization.

Finding F: State Financial Assistance Programs Need to be More Accessible

The State should allocate sufficient resources to support and work with underrepresented communities and California Indian Tribes.

Findings

- The demands of applying for and administering a grant are often a barrier in themselves and may discourage disadvantaged communities and California Indian Tribes from participating.

- Legislation doesn't include participation of community members by barring the use of grant funds for expenses such as childcare, travel, or compensation for time and expertise.

Recommendations

- Increase resources for State agencies to assist communities in applying for and securing grants. Additionally, align funding award timelines with local readiness whenever possible.

- The Legislature should consider amending General Obligation bond law or incorporating provisions in future bond language to expand reimbursable grant expenses, allowing coverage for services essential to the success of underrepresented communities (e.g., childcare, travel, time to attend meetings, and/or specialized expertise).Provide more than one application deadline per grant so that the more-prepared or better-resourced communities can apply early if they would like and others can apply later, especially if they are under-resourced at the time.

- Provide at least six months to develop a grant proposal or a pre-proposal/concept paper option where grant seekers can obtain technical assistance from the granting agency.

- Assist in developing a group where grant seekers can form a collaborative grant forum for support.

- Provide dedicated assistance via a "Help Line."

- Develop a more streamlined grant application process or post tips for success, especially for new grant seekers who may be under-resourced.

- Provide set aside grant funds for underrepresented communities and California Indian Tribes.

- Provide cost share waivers for underrepresented communities and California Indian Tribes and/or incentivize participation with underrepresented communities and California Indian Tribes to better-resourced communities.

Finding G: State Financial Assistance Programs Need to be Better Coordinated

The State lacks coordination among State water programs, leading to problems such as barriers to grant application and increased costs of participating in grant and technical assistance programs.

Findings

- Lack of coordination and integration among State water programs creates hardships for grant applicants. For example, there is currently minimal coordination between the DWR and State Water Board's programs to implement the Sustainable Groundwater Management Act (SGMA) and the State Water Board's Safe and Affordable Funding for Equity and Resilience (SAFER) program. With limited time and resources, it can be challenging for local organizations and communities to understand and engage with all the different programs, grants, and requirements.

Recommendations

- State agencies should coordinate when designing and implementing financial and technical assistance programs (e.g., DWR, State Water Resources Control Board, Governor's Office of Planning and Research, Strategic Growth Council, Governor's Office of Emergency Services).

Finding H: Meaningful Tribal Engagement Requires Early, Sustained Tribal Engagement, Trust, and Structural Flexibility

Engagement With California Indian Tribes is Paramount in Water Management and Requires Time and Respectful Consideration of Tribal Customs and Traditions.

Key Tribal perspective findings were gathered from needs assessments, the Tribal Regional Water Management Webinar Series in May 2020, and the Ensuring Equitable Involvement in Regional Water Planning virtual summit in October 2020.

Tribal engagement approaches varied across funding areas because of the unique circumstances and interests of California Indian Tribes. Some Regions already involved California Indian Tribes in their IRWM governance structures, while others built new relationships with California Indian Tribes in their Regions. While many opportunities were identified through this process, it did not come without challenges.

Findings

- Traditional Tribal territories do not align with IRWM boundaries and may fall within multiple Regions and/or funding areas, making it

difficult for California Indian Tribes with limited capacity to participate in all the relevant Regions.

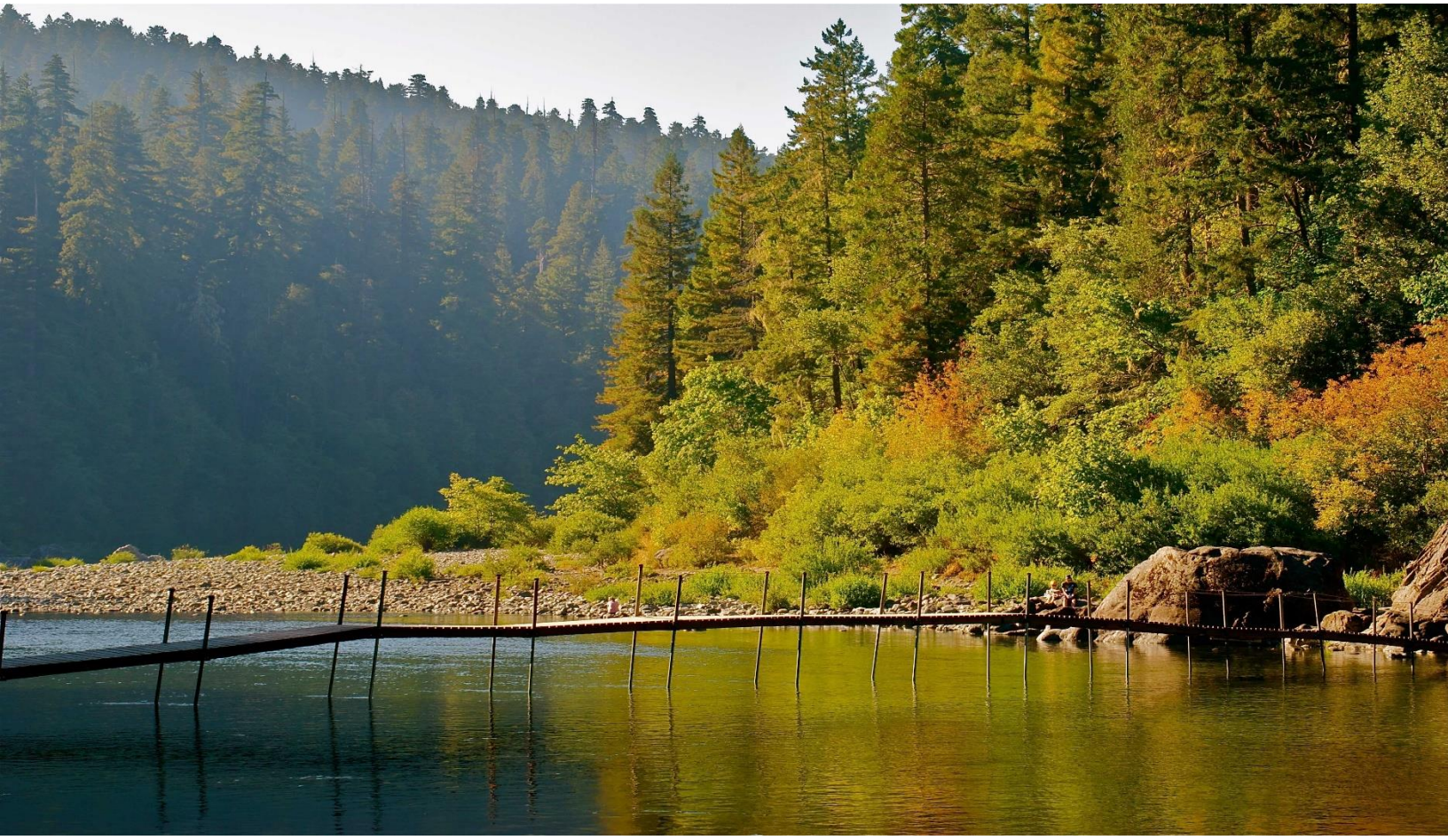
- Some California Indian Tribes do not currently live on their ancestral homelands, so it can be difficult to determine which California Indian Tribes would be interested in participating in which Regions.

Recommendations

- The sovereignty of California Indian Tribes requires that they be involved as independent decision-makers.
- California Indian Tribes are uniquely situated as IRWM practitioners; they bring valuable traditional ecological knowledge (TEK) in water management.
- California Indian Tribes should be engaged early and often in planning and implementation, and Regions should provide designated spaces and adequate time for Tribal participation.

Funding Area Overviews and Needs Assessments

The remaining sections consist of the individual funding area summaries outlining their regional characteristics, challenges, opportunities, and successes. One of the primary goals of the DACTI Program is to assess the needs of California's IRWM regions and their successes and challenges in outreaching and involving local disadvantaged communities and California Indian Tribes. DWR collected details from each funding area's Needs Assessment Report to provide a comprehensive overview of the DACTI Program's outcomes. Each summary was reviewed and approved by the respective grantee.

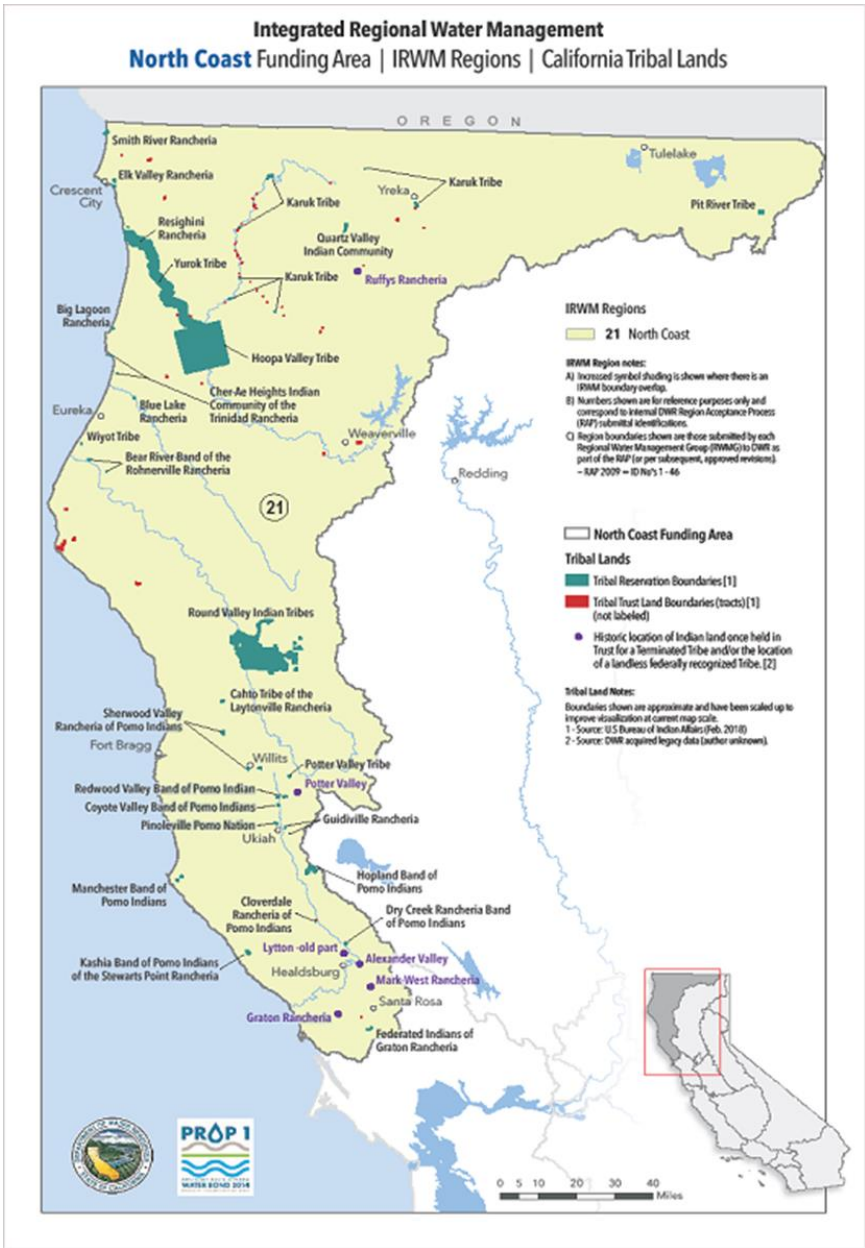


North Coast Funding Area

IRWM Region:

North Coast Resource Partnership

Figure 2. North Coast Funding Area Map



Physical Characteristics

The North Coast Funding Area includes Tribal lands and the counties of Del Norte, Humboldt, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity. The region is divided into two natural drainage basins: the Klamath River Basin and the North Coastal Basin; six watershed management areas: Eel River, Humboldt Bay, Klamath, North Coast Rivers, Russian River/Bodega Bay, and Trinity River; and numerous watersheds and groundwater basins. The North Coast Region contains 58 delineated groundwater basins. The region has

abundant surface water and groundwater resources, with about one-third of its water supply coming from groundwater. Annual precipitation is greater in this region than in any other part of the state, and floods are a fairly regular phenomenon. Seasonal flooding is a characteristic of much of the region, including along river floodplains and low-lying coastal areas. Groundwater resources in the North Coast Hydrologic Region are supplied by both alluvial and fractured-rock aquifers. Arsenic is a naturally occurring element statewide and is the most prevalent groundwater contaminant affecting the North Coast Region. The North Coast is a source region for clean water, carbon sequestration, and biological diversity. These benefits flow beyond the region to other parts of the state, including substantial water contributions to the Central Valley Project from the Trinity River watershed. Climate change impacts on the region include reduced water supply from snowpack accumulation, reduced surface and groundwater supply from decreased precipitation, increased stress on coastal levees and other flood management infrastructure from sea-level rise, and increased stress on forest health. Additionally, community safety and economic vitality are vulnerable to potential impacts of increased wildfire and flooding.

Community Characteristics

Approximately 85 percent of water supply and wastewater treatment systems in the funding area serve economically disadvantaged communities. Over 90 percent of the funding area is considered economically disadvantaged, of which more than 60 percent is considered severely disadvantaged. The region comprises a mosaic of varied land cover or vegetation types, ranging from vast forests and grasslands to smaller areas of urban and agricultural lands. The U.S. Environmental Protection Agency has listed 85 percent of the region's rivers and streams as impaired. The primary surface water impairment is nonpoint source pollution produced by stormwater runoff; erosion and sedimentation from roads, agriculture, and timber harvesting; channel modification activities; gravel mining; dairy operations; failing septic tanks; and methyl tert-butyl ether (MTBE), perchloroethene (PCE), and dioxin contamination from gas stations and industrial activities. Groundwater quality issues in the North Coast Region include seawater intrusion and elevated nutrients in shallow coastal groundwater aquifers; high total dissolved solids, elevated mineral and heavy metal concentrations and alkalinity in groundwater in the Modoc Plateau basins; and iron, boron, and manganese in the inland groundwater basins of Mendocino and Sonoma counties. Legacy pollution from abandoned mines and historical lumber mills as well as present-day forest and

agricultural herbicide applications also pose a potential threat to regional groundwater.

The North Coast Region is the ancestral territory of more than 30 North Coast California Indian Tribes. The majority of the North Coast Tribes feel a responsibility for managing their ancestral territories, whether or not they have the capacity to do so. Therefore, the jurisdiction of the California Indian Tribes goes beyond the gathering, fishing, and hunting rights that each individual Tribal member retains. Each of the North Coast Tribes exerts their jurisdictional authority according to their traditional policies, laws, mandates, and capacity.

Figure 3. Site visit at the Yurok Weitchpec Public Water System



Opportunities Realized from Funding Area-wide Needs Assessments

Identify and secure funding.

- Provide assistance to communities to identify funding opportunities and prepare grant applications.
- Help communities secure funding to design and implement replacements or upgrades for aging infrastructure.

Provide training and technical assistance to improve the capacity of water systems.

- Provide assistance with general water and wastewater system infrastructure operations, maintenance, and repair.
- Offer continuing education courses on technical subjects such as chemical constituents, rebuilding chemical field pumps, cathodic protection, small water system engineering, and other relevant topics.

Diversify local water supplies.

- Find innovative ways to capture winter precipitation, stormwater runoff, and peak flows for use during dry seasons as well as ways to recycle wastewater streams.

Improve and expand planning and management policies.

- Improve conservation planning alignment on policies and regulations between government agencies.
- Develop plans for post-fire management that address strategies for native vegetation resilience and mitigation of impacts on watershed runoff.
- Evaluate the development of interagency and interdepartmental communication models for climate adaptation, mitigation, and other planning subjects of universal concern.

Increase disadvantaged community and Tribal engagement.

- Include trusted local representatives to initiate contact or introduce survey personnel to achieve greater participation.
- Provide an ongoing framework for inclusive intraregional cooperation and effective and accountable project implementation.

Develop and maintain maps of water and wastewater systems.

- Accurate mapping would improve disaster planning and responses to main line breaks.

Share resources with agencies and water providers.

- Neighboring or nearby systems would benefit by helping address the need for specialized tools, equipment, qualified operators, or system management.
- A contacts database, the Community Networking Directory, was developed to allow providers in the region to reach out to similar entities for advice and assistance.

Communicate better with the public and between agencies.

- Frequent communication from water agencies would be beneficial to public awareness and event preparedness.

Improve water quality.

- Expand sewage systems to include creek-side neighborhoods on septic systems, reducing or eliminating the issue of decreased water quality resulting from leaking septic tanks.

Figure 4. Leaf Hillman, Karuk Tribe, receives an award at a North Coast Resource Partnership meeting, demonstrating the value of Tribal leadership



Challenges Encountered or Identified Through the Needs Assessment Process

Need for updates to aging Infrastructure.

- Many communities have old systems and lack resources to do needed replacements.

Lack of organizational capacity in water management.

- Many water systems are small and governed by boards whose membership and leadership periodically changes.
- There is a need for trained personnel and sufficient quality and quantity of staff.
- Emergency management systems rely on declared disasters to perform maintenance.

Distrust among community members.

- Some in the region mistrust or are suspicious of efforts to obtain information about a highly valued and highly regulated resource.

Need for funding.

- There is a significant need for assistance with funding opportunities such as grants and loans.
- Sustained programmatic funding, as opposed to project-specific funding, is lacking.
- Many small water systems have small customer bases and are not able to raise rates enough to cover capital improvements or emergencies.
- Federal funding and framework are insufficient for managing illegal cannabis cultivation.
- Communities are frustrated by the costs to keep up with State testing requirements.

Minimal access to new technology.

- Needs for new technology include water meters, computer systems, and associated technology.

Lack of access to safe drinking water.

- Legacy impacts of logging, including sedimentation, negatively affect water quality.
- Many people are served by private wells or via surface water diversions, and those systems are not well monitored.

Effects of wildfire in the region.

- Concerns with wildfire include water quality after a wildfire, fire suppression, and loss of power during a fire event.
- High severity wildfires have harmful impacts such as increased sedimentation and the potential to create hydrophobic soil.

Impacts of climate change.

- Some communities are vulnerable to sea-level rise and its impacts including coastal bluff erosion, inundation of private wells and agricultural lands, infrastructure damage, and saltwater intrusion.

Geographic barriers.

- Some communities are too far away from other systems to benefit from any kind of resource sharing.
- North Coast communities are very remote, and if they lose roads during emergencies, it will be very difficult to provide relief services.
- Tribal Engagement

California Indian Tribes in the North Coast Funding Area.

- There are 33 California Indian Tribes in the region. Many California Indian Tribes are regularly involved in IRWM, and there are six Tribal seats in the IRWM leadership structure.

Approach to Tribal engagement.

- Tribal involvement in IRWM governance informed the outreach to Tribal communities.
- California Indian Tribes were contacted via online surveys, emails, and phone calls to gather survey data.
- Turnover in leadership and staff made it challenging to contact the correct person in some cases.

Challenges identified through the Tribal engagement process.

- Many California Indian Tribes have inadequate water storage and aging systems requiring upgrades and replacement, but assistance is needed to obtain funds for such improvements.
- Most systems indicated a need for training and maintenance personnel, including certified operators. Turnover and lack of competitive wages are a challenge for a majority of California Indian Tribes.
- Fire concerns ranged from fire suppression reliability, the effect of fire suppression on water quality, loss of power, and effects of smoke.
- System components and threats are not accurately mapped using GPS (Global Positioning System).

Opportunities identified through the Tribal engagement process.

- Support necessary to develop and maintain maps of water and wastewater systems.
- Sharing resources with nearby systems could help address needs for tools, equipment, or system management.
- Assistance with securing funding and navigating the process of replacing or upgrading aging infrastructure.
- Support to remain informed about and comply with State drinking water standards.

Program Successes

Comments Received from Funding Area Representatives

- In 2021, 16 California Indian Tribes (over 75 percent) in the funding area have responded to the survey and/or interview requests to gather information for the needs assessment.
- As of 2021, two Tribal projects were selected for IRWM funding through Proposition 1 (Round 1) Implementation Funding.
- The technical assistance provided through the DACTI Program for project development was invaluable for the many disadvantaged and underrepresented communities and water services providers within the funding area.
- Seven projects that received direct engineering technical assistance were awarded IRWM funding through Proposition 1 (Round 1) Implementation Funding.
- The DACTI Program has supported continued collaboration within the funding area so that underrepresented communities can continue to benefit from the leadership provided by the North Coast Resource Partnership related to achieving IRWM program goals and objectives.
- The DACTI Program has supported the Tribal Engagement Coordinator to facilitate increased involvement from Tribal representatives in IRWM leadership.
- Travel expense assistance offered through the DACTI Program made it possible for some Tribal representatives to participate in quarterly face-to-face meetings when they otherwise might not have been able to.
- A Small Community Toolbox was developed to provide resources and references that allow small communities to systematically approach the management and improvement of infrastructure, as well as to assist in the project development process.

To learn more about the North Coast Funding Area Disadvantaged Community and Tribal Involvement Program, contact Cybelle Immit at cimmitt@co.humboldt.ca.us.

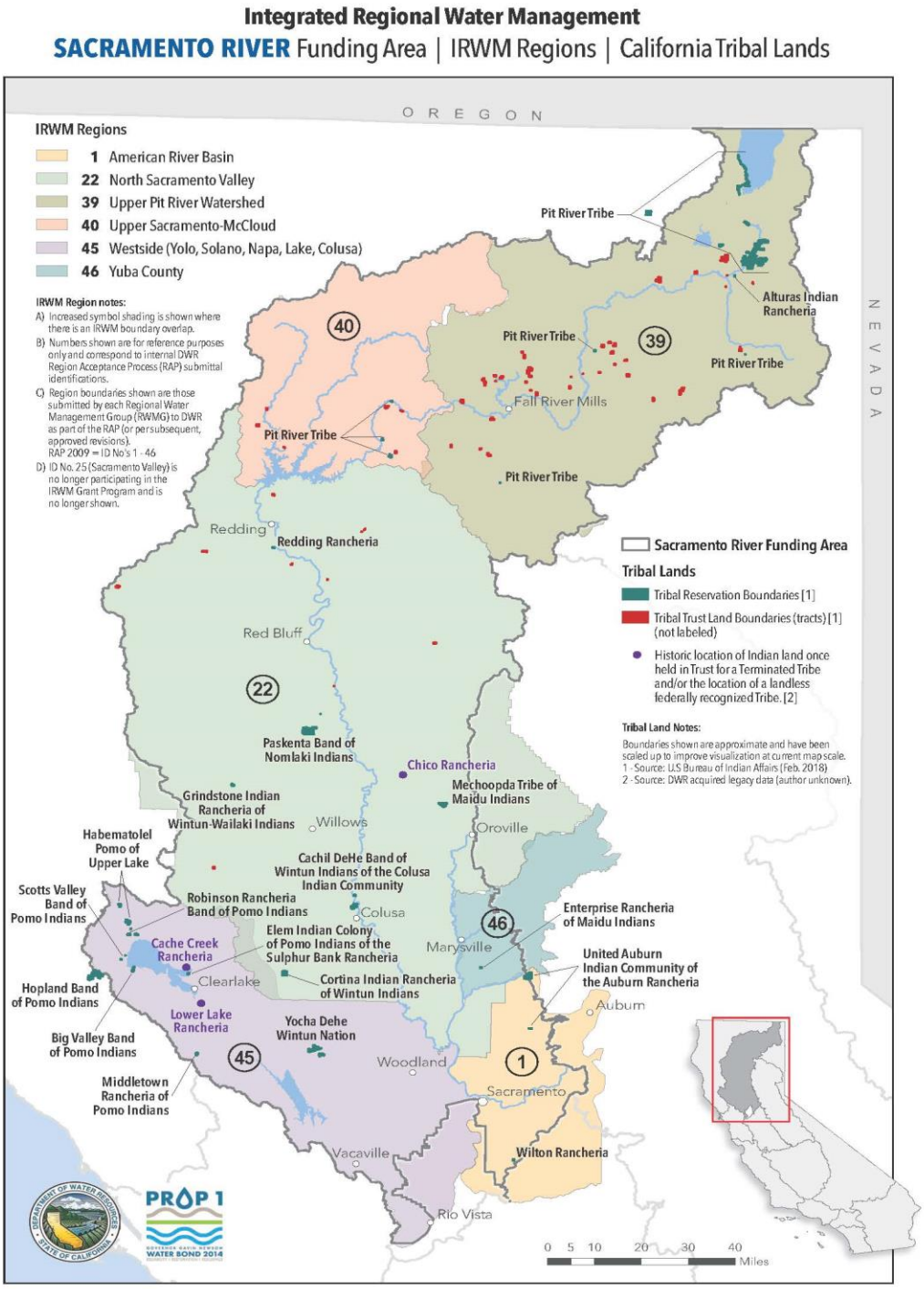


Sacramento River Funding Area

IRWM Regions:

American River Basin, Westside (Yolo, Solano, Napa, Lake, Colusa), North Sacramento Valley, Yuba County, Upper Pit River Watershed, Upper Sacramento-McCloud-Lower Pit

Figure 5. Sacramento River Funding Area Map



Physical Characteristics

The Sacramento River Funding Area covers the majority of the Sacramento River watershed, including many of its tributaries, such as the Pit River.

Water supplies in the funding area include both surface water and groundwater, with much of the surface water being exported to other parts of the state. The Sacramento River watershed benefits from a large snowpack and resulting surface water throughout the spring and early summer. The Sacramento River originates in and flows through the region. The flow of the river and its tributaries has been managed to a significant degree by the facilities of the federal Central Valley Project (CVP) and the State Water Project (SWP). Flows in the river are influenced by the operation of Shasta and Oroville dams and other local projects. Along the Pit River, there are 63 jurisdictional dams and reservoirs in the watershed that seasonally store rainfall and snowmelt and then release the water for irrigation use throughout the summer season. The Sacramento River watershed contains numerous reservoirs, including Shasta Lake and Lake Oroville, the two largest reservoirs in California, which are major features of the CVP and SWP, respectively. Many critical climate change vulnerability needs are related to reducing the risk of wildfire to communities and water systems and adding to the resiliency of these communities in the face of increased fire risk resulting from climate change. Additionally, potential climate change impacts include more frequent and extreme droughts and snowpack reduction.

Figure 6. Students take a field trip to the Yuba River to learn about river concepts, salmon life history, and other creatures that live in their local rivers



Community Characteristics

There are 91 disadvantaged communities that have been identified in the funding area. Agriculture and ranching occupy much of the valley and foothill areas of Siskiyou and Shasta counties. Agriculture is also the largest industry in the Sacramento Valley (with major crops including rice, nuts, grains, and tomatoes). The valley's agricultural water requirements are met by surface water and groundwater supplies, recirculated tailwater, and use of drain water from upstream sources. Some municipal and agricultural users also rely significantly on sources of water imported into the region from the SWP and CVP. Land in areas outside cities and service districts is mostly served by individual wells and septic tanks and is managed by county services or special districts. Developed areas of the valley are highly dependent on levees for flood protection and may experience difficulties with drainage and wastewater discharge. Groundwater is the principal source of water for urban and rural dwellers, individual farmsteads, and small towns. Groundwater is used extensively to meet irrigation water demands. Potential hazards to groundwater quality involve nitrates and dissolved solids from agricultural and range practices and septic tank failures. Arsenic and hexavalent chromium (chromium-6) are naturally occurring and may occur in some groundwater sources on the west and east sides of the Sacramento Valley. Additionally, mercury is a significant source of water quality impairment throughout the westside region and is a legacy left by the extensive mining done within the region in the past.

Figure 7. An Olivehurst Tu Aqua Water Education event to teach kids, parents, and community members about their watershed and impact on their waterways



Opportunities Realized from Funding Area-wide Needs Assessments

Provide technical assistance.

- An O&M SWOT (strengths, weaknesses, opportunities, and threats) case study is being developed to see if a model for regionalizing O&M and sharing technical staff can bolster the functionality of these systems.
- Free training, technical assistance, and project development support has been provided by technical experts to help rural water system operators know where to find help when they need it.

Improve communication with communities.

- All communication should be in multiple languages. A collection of key communication templates should be developed for this purpose.
- Spanish language water education materials are being developed to help Latino communities better understand their water and watersheds and how to test the general safety of tap water.
- Develop information and materials regarding water quality and watershed health, and ensure dissemination to all residences, not just those who directly pay the water bill.
- Conduct public meetings to address water issues; provide targeted water use recommendations and answer community questions.

Evaluate water supply for quality issues.

- Work with water purveyors on water quality issues noted by the communities to better understand how to address these issues with education and/or project-based assistance.
- Develop water quality evaluation projects within the systems where customers complain of issues.
- Conduct sample water testing at point-of-use locations in older neighborhoods to see if the quality of the water remains consistent with the quality at its origin.

Improve affordability of water services for community members.

- Explore the feasibility of developing a rate payment schedule for farmworkers that mirrors the seasonal nature of their work.

Create a plan for capital improvement projects.

- Develop capital improvement plans to help secure funding for infrastructure renovation. The plans could be prepared with input from affected communities via meetings to help focus key priorities.

Gather data to better identify underrepresented communities.

- An ongoing data compilation task was initiated to identify all small water system data available and for the creation of a GIS database and associated maps of these water systems.

Take advantage of funding opportunities.

- Diversify funding opportunities (e.g., Drinking Water State Revolving Fund planning grant) to upgrade aging sections of water systems.
- Communities should seek innovative funding solutions to finance projects. Environmental Impact Bonds and other collaborative financing tools are underutilized when compared with private funding.

Challenges Encountered or Identified Through the Needs Assessment Process

Lack of organizational capacity in water management.

- Remote and rural water purveyors need capacity-building for their board members and staff but have difficulty retaining these staff once they are adequately trained.
- Training and technical assistance is needed to support project implementation and management after funding is secured.
- Capacity is lacking for meaningful engagement with IRWM groups, causing underrepresented communities to be left out of opportunities for funding, training, and other technical support programs.

- With no maps or GIS data of small water systems' distribution, there is often only one person who knows the location of underground pipes or how the system functions.
- The lack of internet in many rural communities limits the growth and movement of capable people and creative solutions to the issues communities face.
- When water system operators, board members, and other key staff retire or move there are no replacements in training.

Lack of funding in small water systems.

- The operating budgets of numerous small water systems do not allow for adequate funding of key monitoring, maintenance, staff training, and other ongoing operations needed to remain in compliance with State regulations.

Ensuring long-term water supply.

- Many communities have insufficient water storage tanks or do not have storage tanks.
- There is a need for source redundancy to ensure water resources do not run out in times of drought or experience water quality issues.

Water quality issues throughout the funding area.

- Iron, manganese, arsenic, nitrates, chromium-6, and high turbidity are causes of contamination in water systems throughout the funding area.
- Some community members drink and cook with only bottled water because of the taste/color or mistrust of tap water.
- Private domestic wells can be contaminated by private septic systems.
- Natural disasters, such as drought and flooding, cause a decrease in water quality.

Aging infrastructure is a significant issue throughout the funding area.

- Many communities have aging distribution and sanitary sewer systems that need to be replaced or upgraded.

Geographic barriers.

- Remote and/or small water systems have logistical barriers (e.g., mountainous terrain) that preclude their physical consolidation with other systems.
- Power outages can cause communities relying on pumps to lose access to their water sources, and many communities have no emergency or redundant power source.
- Tribal Engagement.

California Indian Tribes in the Sacramento River Funding Area.

- There are a substantial number of California Indian Tribes with traditional lands across the funding area, and many have current or ancestral lands that fall within multiple IRWM regions or multiple funding areas.

Approach to Tribal engagement.

- The Sacramento River Funding Area, with support from the California Indian Environmental Alliance (CIEA), coordinated a series of workshops to gather input from the California Indian Tribes in the region for the Tribal Needs Assessment.
- The approach for Tribal engagement following the needs assessment included Tribal-only training workshops and by-request technical assistance and project development.

Challenges encountered through the Tribal engagement process.

- Traditional Tribal territories do not align with IRWM boundaries and may fall within multiple regions and/or funding areas, making it difficult for California Indian Tribes to participate in all the relevant regions.

- A lack of Tribal involvement in local IRWM efforts can frequently be attributed to a lack of inclusion efforts and insufficient understanding about Tribal homelands and traditional territories.
- Local agencies and governments still have limited waivers of sovereign immunity required for participation in IRWM regions, which is a barrier to Tribal participation.
- Emergency response plans, fire suppression supplies and hydrants, water storage, and systems operation are the most pressing concerns.

Opportunities encountered through the Tribal engagement process.

- Provide more detailed information on how California Indian Tribes can prepare and submit projects in their IRWM regions.
- Provide guidance on which IRWM region California Indian Tribes should work with if their territories cover multiple regions to encourage participation.
- Provide consistent and designated space for Tribal participation in IRWM regions to build more trust and change the negative perception California Indian Tribes have about some IRWM regions.
- Development of a statewide IRWM Tribal Advisory Committee or working group could increase Tribal involvement.
- Partnerships with California Indian Tribes can be encouraged by incentivizing the funding of Tribal projects and projects that support culturally beneficial uses, access to water, and use of Traditional Ecological Knowledge.
- Interregional funding and collaboration can support Tribal projects in multiple regions and result in more overall watershed benefits.
- DACTI Program funds are unique and provide opportunities for certain California Indian Tribes that are not eligible for other types of funding, because they have small systems or are not federally recognized. However, the key needs of these California Indian Tribes do not fit well into the focus areas of other grant programs.

Program Successes Comments Received From Funding Area Representatives

- The Phase 1 Needs Assessment and small water system database creation were very successful and gave a clear picture of the needs across the funding area.
- One-on-one technical assistance, project development, and training workshops developed to meet the key needs identified in Phase 1 are going very well.
- The case studies initiated by this grant in the Upper Pit and Upper Sacramento regions for the O&M SWOT project and the Latino water education case study in the Yuba Region were successful.
- The DACTI Program supported technical review and coordination leading to all Round 1 IRWM Implementation Grant awards being fully funded, most of which were fully sponsored by disadvantaged communities.

To learn more about the Sacramento River Funding Area Disadvantaged Community Involvement Program, contact JoAnna Lessard at jlessard@yubawater.org and also see www.srfadaci.com.



Mountain Counties Funding Area

IRWM Regions:

Upper Feather River Watershed, American River Basin, Mokelumne/Amador/Calaveras (MAC), Tuolumne-Stanislaus, Yosemite-Mariposa, Cosumnes/American/Bear/Yuba (CABY), North Sacramento Valley, Yuba County, Madera, Southern Sierra

Figure 8. Mountain Counties Funding Area Map



Physical Characteristics

The Mountain Counties Funding Area encompasses the western slope of the Sierra Nevada and a small part of the Cascade Range. The funding area covers 15,750 square miles, 60 percent of which is national forest or national park lands. Over 40 percent of California's water supply originates in the headwater streams of the Mountain Counties Funding Area, and watersheds in the region account for about one-quarter of all-natural runoff in the state. The Sierra Nevada snowpack is California's largest reservoir, supplying water to other areas of the state during the dry summer months. Surface water quality is generally high in the headwaters because the water comes from snowmelt, rainfall, and springs, but water quality can be lower downstream as sediment and contaminants are introduced. Groundwater quality varies by location. Water supply and water quality in the region are threatened by climate change as the Sierra Nevada face increased risk of drought, snowpack reduction, severe wildfire, and tree die-off. Snowpack reduction and drought will decrease water supply in the region, while wildfire and tree die-off will lower water quality by increasing erosion and sedimentation.

Community Characteristics

The funding area is home to approximately 612,000 people. Communities in the region are predominantly rural, with important historical and economic ties to the land. Ranching, timber, mining, and agriculture have historically shaped the region's economies, ecosystems, and community demographics. While these industries continue to support many local economies, viticulture and recreation have become increasingly important in recent years. The area's population has experienced net growth since 2000, but growth has been uneven across the region. Less developed counties are experiencing population loss, while more developed areas are experiencing growth, with most of the region's growth driven by El Dorado and Placer counties. One-third of census blocks in the funding area are disadvantaged; counties with the largest numbers of such communities include Butte, Sierra, Nevada, Tuolumne, Mariposa, and Madera. Toxins such as arsenic and mercury, a legacy of California's extensive mining history, continue to pose a threat to water quality in the funding area. While the region has shifted away from mining and remediation projects are addressing mining toxins in the water supply, a new threat in the form of pollution from cannabis growing operations (both legal and illegal) is a growing concern.

Opportunities Realized from Funding Area-wide Needs Assessments

Create a regional resource center.

- Expand services for local service providers, disadvantaged communities, and California Indian Tribes, including professional services such as environmental permitting (CEQA/NEPA [California Environmental Quality Act/National Environmental Policy Act]), engineering and design, GIS, archeology (in collaboration with California Indian Tribes), and project planning.
- Establish an equipment sharing or centralized buying program between water service providers to reduce cost burdens.
- Support a shared compliance officer position to offset time and financial costs of staying in compliance.

Support information sharing.

- More outreach is needed in the funding area to reach stakeholders who do not currently participate in IRWM.
- Many stakeholders have difficulty accessing information about funding opportunities or assistance programs. A comprehensive database of grant opportunities would help service providers find and apply for these funds.
- Create and maintain a referral list of vendors, consultants, and residents with existing knowledge or data on local systems and conditions.

Provide education, training, and assistance to service providers and the public.

- Coordinate safety and training courses for multiple water districts.
- Provide regulatory compliance, grant writing, and operator training. Training should include continuing education units, which are required for renewal of operator licenses.

- Develop manuals for water systems to preserve institutional knowledge where turnover is high.
- Educate homeowners and renters on water issues affecting their communities to improve local knowledge and promote water conservation.
- Provide assistance to local water systems for water quality testing and septic inspection.

Develop regional plans for future droughts and other adverse climate events.

- Develop a regional drought plan for water purveyors in each IRWM region. Small water purveyors often lack the capacity to complete these plans without assistance.
- Develop long-term strategies for creation of new meadows and natural management of forests.
- Assist communities in exploring opportunities for water recycling and provide financial assistance to offset costs associated with water reuse.

Develop programs to attract and retain qualified staff.

- Offer free training to prospective staff in return for a two-year commitment.
- Create a WaterCorps (similar to AmeriCorps) to attract young professionals interested in water management.
- Provide support to existing staff for the IRWM program, outreach and engagement, and funding to pay for administrative staff to support infrastructure upgrade work and technical assistance projects.
- Capacity building must include support for those communities that already have knowledge and skills to facilitate improvements of their water systems, but do not have funds to pay to do so.

Challenges Encountered or Identified Through the Needs Assessment Process

Need for updates to aging infrastructure.

- Potable water supply leaks caused by aging infrastructure are a significant issue for many regions in the funding area. Leaks lead to water waste and increased costs for water purveyors and customers.
- Some areas rely on wooden flumes and storage tanks, which are susceptible to wildfire, contamination, winter ice, and debris.
- Many communities rely on septic systems that are failing and need costly upgrades.

Inadequate water storage and supply for drinking and fire suppression.

- Impacts from climate change, such as severe wildfire, drought, and reduced snowpack, increase the need for water storage, yet, many areas have inadequate, decaying, or leaking storage tanks.
- Fires can drain communities' water supplies and leave residents without a backup water source.
- Some areas are not able to pump water when there is a power outage.
- Some communities have had to buy water, and have it trucked in, which is expensive.
- Water pressure is generally low and can fluctuate based on water supply, conveyance capacity, and other factors. In some areas, low water pressure can prevent the California Department of Forestry and Fire Protection from using available water for fire suppression.

Water quality issues throughout the funding area.

- Legacy mining toxins (arsenic, iron, manganese, uranium, and mercury) are a common concern in the area and contaminant removal is expensive.

- Erosion caused by wildfires increases sedimentation and lowers water quality.
- Some residents rely on raw, untreated water from open canals for use in their homes.
- Algal blooms caused by high temperatures and nutrient loading can impair water quality and release toxins.

Affordability challenges experienced in communities around the funding area.

- Service districts in the area are small and lack the revenue, staff, and expertise to meet regulatory requirements.
- Data on water and wastewater monitoring requirements are lacking as a result of financial and staffing issues.

Difficulties in recruiting, training, and retaining staff.

- It is difficult to find and hire qualified and affordable operators because of the small populations and relatively low wages of rural communities in the mountain counties.
- Training is frequently limited to large, urban areas. Traveling to attend training is expensive and burdensome to many operators.
- For small communities, a single individual often performs many roles. Local experts and qualified personnel often do not have administrative support to apply for funding, hire additional staff, or expand operations to get necessary work done.
- Tribal Engagement

California Indian Tribes in the Mountain Counties Funding Area.

- There are approximately 30 federally recognized California Indian Tribes in the funding area. There are also several non-federally recognized California Indian Tribes that live in or have ancestral homelands in the funding area.

- Mountain Counties contains 15 Rancherias that were terminated by the California Rancheria Termination Act of 1958. More than half of these Rancherias have regained federal recognition since 1977.

Approach to Tribal engagement.

- Outreach in the area is led by the Sierra Institute for Community and Environment, in collaboration with Tribal liaisons.
- California Indian Tribes were encouraged to complete a drinking water/wastewater needs survey.
- Extensive follow-up was conducted with California Indian Tribes that had not responded to earlier outreach attempts.

Challenges encountered through the Tribal engagement process.

- Tribal participation with the IRWM regions has generally been low. Some California Indian Tribes are small and do not own land or water systems and some do not have paid staff to work on water issues.
- Some California Indian Tribes do not have the capacity to actively serve on IRWM committees, especially those that are focused on gaining federal recognition or land holdings.
- It is difficult for Tribal members to attend meetings that are spread throughout IRWM regions, counties, and service districts whose boundaries do not align with Tribal homeland boundaries.
- Some California Indian Tribes do not currently live on their ancestral homelands, so it is difficult to determine which California Indian Tribes would be interested in participating in which IRWM regions.

Opportunities identified to improve Tribal engagement.

- Continue outreach and engagement with California Indian Tribes. Tribal partners should be aware of Tribal organizational structures and practices, and exhibit patience and understanding.
- Public agencies should make efforts with all Tribal contacts to build strong and resilient communities.

- California Indian Tribes are interested in help with emergency preparedness, engineering and design, infrastructure maintenance, water quality testing, stream restoration, invasive plant removal, and training, as well as water storage for drought or fire suppression.

- Partner with Tribal youth members to support Tribal inclusion in IRWM and to recruit qualified staff for small water systems.

Program Successes Comments Received from Funding Area Representatives

- The DACTI Program has promoted cooperation between IRWM regions in the funding area. Coordinating the grant program through a committee helped IRWM regions identify specific needs, funding streams, and policy objectives. Regions were also able to share resources and expertise to highlight the needs of disadvantaged communities and California Indian Tribes.

- Increased cooperation in the funding area led the nine participating IRWM regions to evenly split Proposition 1 Implementation funding rather than applying competitively.

- The DACTI Program has highlighted the disconnect between California Indian Tribes and IRWM regions. Although there is still much work to be done, an increasing number of people are now aware of this issue and are interested in addressing it.

Figure 9. Community leaders discuss community boundaries within their IRWM region during a mapping activity



To learn more about the Mountain Counties Disadvantaged Community Program, contact Zoe Watson at info@sierrainstitute.us.

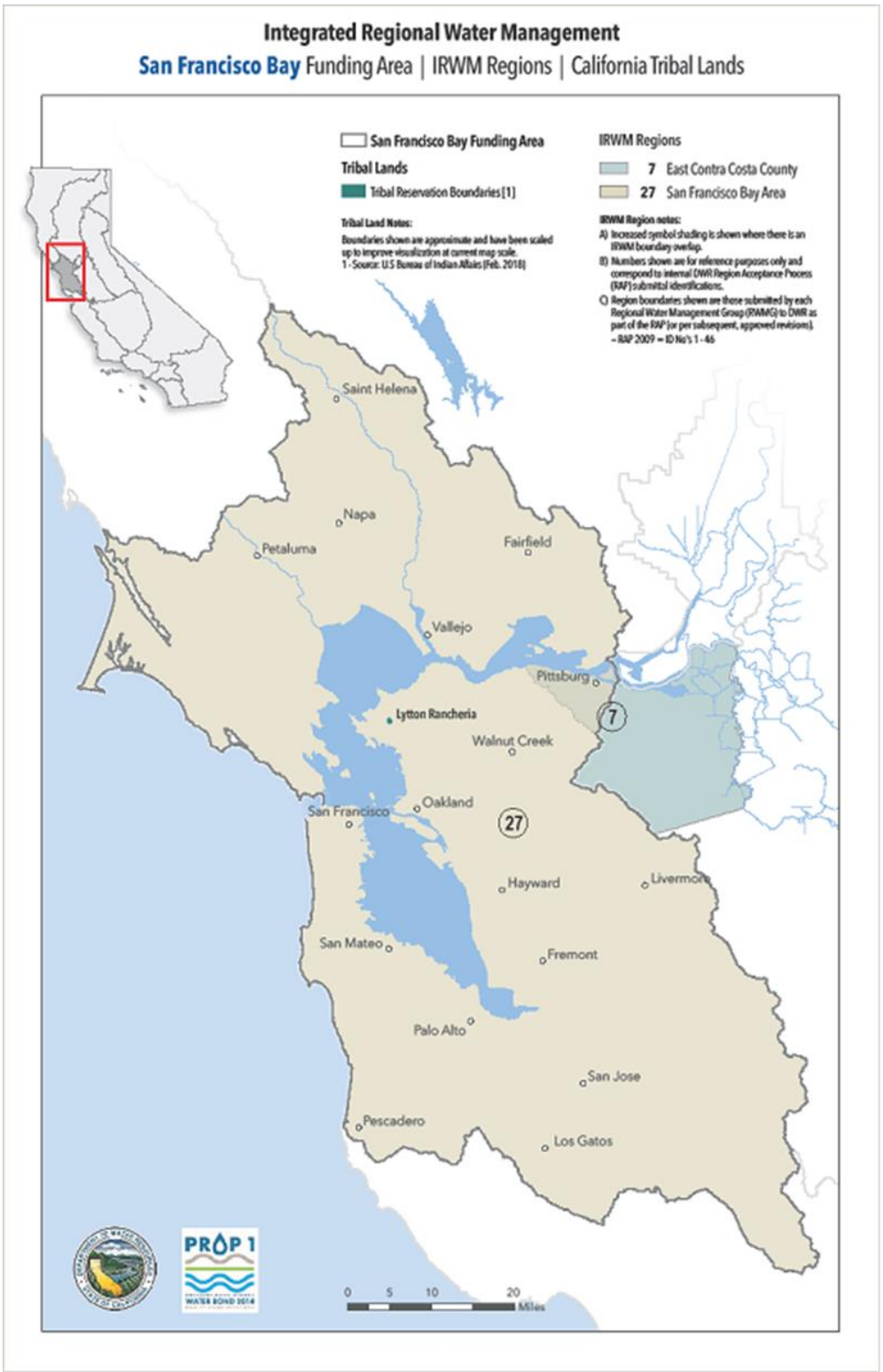


San Francisco Bay Area Funding Area

IRWM Regions:

San Francisco Bay Area

Figure 10. San Francisco Bay Funding Area Map



Physical Characteristics

The San Francisco Bay Area IRWM Funding area consists of nine counties: Sonoma, Napa, Solano, Marin, Contra Costa, San Francisco, San Mateo, Alameda, and Santa Clara. These nine counties make up the entire Bay Area and the lower Delta. Their combined goal is to meet long term state and regional water management concerns, such as flood protection, water conservation, habitat restoration, and watershed resource protection. The region is prone to flooding due to sea level rise, high rainfall, and improper infrastructure. This leaves community members vulnerable and having to deal with flood damages, health risks from contaminated water, and at times leaves them isolated from important public services (i.e., Fire Department, Health Care, etc.).

Community Characteristics

The funding area consists of highly populated urban regions with many disadvantaged communities, including people experiencing homelessness. The counties that make up the San Francisco Bay Funding Area are ethnically, economically, and linguistically diverse. The communities within this funding area also experience high levels of air and water pollution from industries in the area, such as wastewater treatment plants, fuel refineries, and crude oil to name a few. There is a serious problem in this region related to its high cost of living. Mixed with the large range in annual income, the large income disparity has resulted in gentrification and many lower income individuals and families being forced out of their homes and communities. Additionally, homelessness is prevalent and access to clean water is a major concern.

Opportunities Realized from Funding Area-wide Needs Assessments

Address funding insufficiency and inequity.

- Increase the amount of funding for disadvantaged, frontline, and marginalized communities and for California Indian Tribes.
- Begin grant development processes with Disadvantaged Communities and California Indian Tribes and support them in leading these programs to ensure funding is allocated to meaningfully address issues.

- Target grant funding to increase economic impact specifically in Disadvantaged Communities such as African American communities and California Indian Tribes.
- Allow expenses that increase Disadvantaged Communities and Tribal engagement, including food and childcare.
- Ensure Disadvantaged Communities and California Indian Tribes can access awarded funding expeditiously through initiatives including advanced payment provide technical support, longer application lead times, and streamline the application processes.
- Ensure grant programs are inclusive by ensuring qualifying requirements do not unintentionally disqualify some Disadvantaged Communities and California Indian Tribes.
- Improve water supply reliability and quality especially for those that need it the most.

Build relationships and earn trust.

- Listen to public complaints and take appropriate actions.
- Work with Disadvantaged Community and Tribal partners to understand how to engage, develop engagement tools and surveys, and hold meetings in their communities.
- Take the time to learn about the unique histories and challenges of Disadvantaged Communities and California Indian Tribes to understand and address barriers to participation.
- This includes ensuring materials are translated, that food, childcare, and interpretation are provided at meetings, and outreach materials are disseminated widely and not just through traditional channels.
- Do not overpromise and invest your time to build trust.
- Step back and support by following a Disadvantaged Community's or California Indian Tribe's lead.
- Promote environmental, economic and social sustainability and awareness through outreach and education.

- Increase tap water and groundwater quality testing and act on the results to increase community trust in water supply.

Challenges Encountered or Identified Through the Needs Assessment Process

Aged and aging infrastructure.

- Old water infrastructure and degrading pipes cause poor water quality.
- This can cause bad-tasting, unsightly, and unsafe drinking water causing adverse health impacts including skin conditions, growths, and asthma-like symptoms.
- People must spend extra money and time to buy water filters or bottled water to drink and cook with because tap water is unsafe, unsightly, or tastes bad.
- Lack of adequate investment and maintenance of water infrastructure.
- Sewer system backs up and flooding occurs during rainy season.
- Reluctance to bring up maintenance issues due to fear of landlord and risk of eviction.

Flooding and sea level rise.

- Areas of low elevation, those near to the water ways and the ocean are especially at risk of flooding.
- Wells are subject to flooding and contamination.
- Flooding occurs as a result of storms, overflowing creeks and storm drains, and sea level rise.
- Public Health: Flood waters mix with contaminated materials that people are exposed to or must wade through.
- Transportation Access: Flooding cuts off access to homes, community centers, grocery stores, doctor’s offices, and other important areas.

- Infrastructure: Flooding damages or destroys critical infrastructure, including utilities such as electricity and gas, which can endanger public health.
- Climate change will cause greater storm severity and sea level rise leading to a higher risk of flooding and its consequences.
- Sea level rise also causes cliff erosion, leaving some coastal communities at risk of losing their homes.

Water pollution and contamination.

- Trash and litter pollute the water going into streams and the ocean.
- Litter can also clog storm drains causing flooding during rain events.
- Industrial contamination and illegal dumping of chemicals pollute waterways.
- Pathogens and excess nutrients from fertilizers pollute waterways.
- Fish and wildlife are negatively impacted and contaminated due to pollution which makes it risky or unsafe for human consumption.

Lack of knowledge about nearby water assets and waterways.

- There is a lack of knowledge about local waterways and water assets.
- This can be due to a lack of access to engaging educational information.

Desire for water conservation.

- Many communities desire to conserve water to save on water bills.
- There is a lack of accessible information on how to conserve water.

Lack of access to green/open spaces.

- Some communities do not have access to safe green spaces for children and family.
- Some greenspaces are too far away to access.

- There is a lack of knowledge of how to get to creeks and greenspaces.
- Some projects pushed by politicians and nonprofits would deny locals access to waterfront and tidelands.

People experiencing homelessness have the least access to Water, Sanitation, and Hygiene (WASH).

- Develop additional facilities in accessible locations and improve services at existing facilities to ensure they are regularly cleaned, kept well-stocked, and safe.
- Make necessary water facilities such as bathrooms and other services reduced-cost or free.
- Ensure services are coordinated and well-publicized so people know they exist, as well as where and when they can access them.
- Service providers need to coordinate with one another to cover the most areas at the most times.
- Collect more water quality data for accurate information and prioritization of resources and services.

Disadvantaged and Tribal Communities.

- Lack of advanced payment reduces access to disadvantages communities that cannot afford the upfront costs.
- There is poor water quality in some regions due to aging infrastructure.
- Industrial contamination such as old gas stations, dry cleaners, and highways contaminate groundwater and pollute stormwater runoff, exposes DAC and Tribal members to toxins in waterways and possibly leaches into drinking water supplies.
- Illegal dumping and trash in streets that ends up clogging storm drains and pollutes runoff and floodwaters.

Tribal Engagement

California Indian Tribes in San Francisco Bay Funding Area

There are many historical and current Tribal groups withing the San Francisco Bay Funding Area. Many either wanted to participate, but were unable to due to capacity requirements, or some Tribal groups stepped aside to allow others the opportunity to participate.

Approach to Tribal Engagement

The California Indian Environmental Alliance (CIEA) created a needs assessment survey with five California Indian Tribes living in the area in the 2019 Tribal Advisory Committee. They were able to produce a list of primary issues and concerns.

Challenges Encountered Through Tribal Engagement Process

- Low overall familiarity with IRWM among surveyed Tribal members.
- Some Tribal territories cover more than one IRWM Region, leaving the Tribal members feeling like they must choose which region to focus their efforts on.
- Only 34% of participants still lived in their Tribal territories, usually due to external factors such as gentrification and increased cost of living.
- High prices in San Francisco Bay Area made gathering for meetings difficult.

Opportunities Identified to Improve Tribal Engagement

- Built Trust with California Indian Tribes
- Encourage communication between regional water providers and the California Indian Tribes they service by providing contact information.
- Dedicate a Tribal Engagement Coordinator or dedicate staff to update Tribal contact lists so that California Indian Tribes receive meeting invitations, project solicitations and up-to-date information that enables them to participate in the IRWM Program

- DACTI can serve as a resource that fills in the gap left for California Indian Tribes and federally unrecognized California Indian Tribes.
- Recognize that California Indian Tribes are sovereign governments, and their needs should be respected.
- Allow California Indian Tribe members to participate in the conversation that goes into the planning and implementation of grants. Consider allowing funders to pay members for their time, insight, and expertise as an incentive for greater participation.
- San Francisco Bay Area Tribes continue to express agreement that a funding area-wide Tribal Advisory Committee (TAC), is the best way to guide the Tribal DACTI Program. The TAC serves to both encourage California Indian Tribes to participate in the DACTI Program and in their own IRWM regions.
- Follow up with California Indian Tribes who have documented failing infrastructure, document specific needs, including the scope of upgrades, and identify an appropriate funding source.
- For water source resilience there is a need for California Indian Tribes to secure secondary or alternative sources of water from different water sources or aquifers to ensure continuity of water supply for their territories to maintain cultural practices and subsistence.
- Identify a bulk storage tank purchase solution because this need is shared by many California Indian Tribes in the San Francisco Bay Area region. This need is for both potable and non-potable water sources.
- Ensure access to water/fire hydrants in emergencies, recommend that Tribal staff and/or leadership are trained as regional fire responders with the appropriate fire hydrant wrench(es), access, and link into a network of water tender “tankers” that are stored for use in the local area.
- Provide Hazardous Waste Operation and Emergency Response (HAZWOPER) training and coordinate with California Indian Tribes to be sure the training contains the elements respondents need.
- Provide trainings in water quality sampling, board governance structuring, visualization software, nonprofit background and

information training, and obtain tools for monitoring such as plankton and microplastic monitoring.

Program Successes Comments Received from Funding Area Representatives

- The DACTI Program worked with Disadvantaged Community and Tribal outreach partners to launch a grant funded tap water quality testing effort throughout the Bay Area.
- The DACTI Program is working to provide individualized grant-writing support and provide a list of funding opportunities
- The DACTI Program Team created a survey of capacity building needs heard through conversations with Disadvantaged Community and Tribal partners. The results are available in a shared drive: the DACTI Program Collaborative Space.

The San Francisco Bay Area Funding Area Disadvantaged Community and Tribal Involvement Program, managed by the San Francisco Estuary Partnership, includes the following elements: (1) needs assessments of Bay Area communities and California Indian Tribes; (2) capacity-building, technical assistance, and potential project development by community organizations for future funding; (3) integration of community organizations and California Indian Tribes into the SF Bay Area IRWM Coordinating Committee.

The Estuary Partnership worked with 15 outreach partners, primarily community-based organizations, and the California Indian Environmental Alliance (CIEA) to conduct needs assessment activities with 20 communities, four California Indian Tribes, and people experiencing homelessness throughout the IRWM Funding Area.

The outreach partners and CIEA are using the community/California Indian Tribes assessment findings to guide development of project-based solutions for future implementation funding. They are also identifying the technical assistance and capacity-building necessary to successfully apply for, manage, and/or fully partner in the funding and implementation processes.

Many of the outreach partners have transitioned into project development work that includes an array of project ideas that were identified by the communities and California Indian Tribes as projects that will meet their

most pressing self-identified needs. Each community and California Indian Tribe are working with local interested parties and potential partners to address their specific sets of needs as identified through the needs assessment process. Included among these is a regional tap water quality testing program, where approximately 1,000 residences, schools, and Tribal facilities will send in water samples to be tested at Environmental Laboratory Accreditation Program (ELAP) certified labs in California. This program is intended to address widespread mistrust in Bay Area tap water quality discovered during the needs assessment phase of this program. The hope is to increase trust in tap water quality by providing an opportunity for residents and California Indian Tribes to get their water tested independently, increase local partnerships and information sharing between communities and their utilities, and create a unique dataset that can be used to inform policy and funding decisions regarding water infrastructure on public and private sides of distribution systems. Other community led project development efforts are focused on flooding, mapping hazardous areas vulnerable to sea-level rise, restoration projects, and the replacement of old pipes used in the distribution of drinking water.

The California Indian Tribes are currently engaged in a number of partnership building and project development efforts. Some of those efforts are described below but do not reflect the entirety of their current project development work:

The Association of Ramaytush Ohlone is working on developing a cultural and environmental restoration project on a 36-acre farm in the San Gregorio watershed. This farm is planned to be given to the California Indian Tribe by the Peninsula Open Space Trust.

The Muwekma Ohlone Tribe of San Francisco Bay Area and the Amah Mutsun Land Trust / Tribal Band are currently exploring environmental restoration project opportunities with Valley Water (formerly, Santa Clara Valley Water District) and the Santa Clara Valley Open Space Authority, in the Coyote Valley area.

Him-r^n Ohlone, Jaliquin Saclan Tribe, Bay Miwok, and Plains Miwok are working with East Bay Regional Parks to explore cultural and environmental restoration opportunities in the Hayward Wetlands and Coyote Hills areas.

To learn more about the San Francisco Bay Area Disadvantaged Community and Tribal Involvement Program, contact James Muller at james.muller@sfestuary.org.

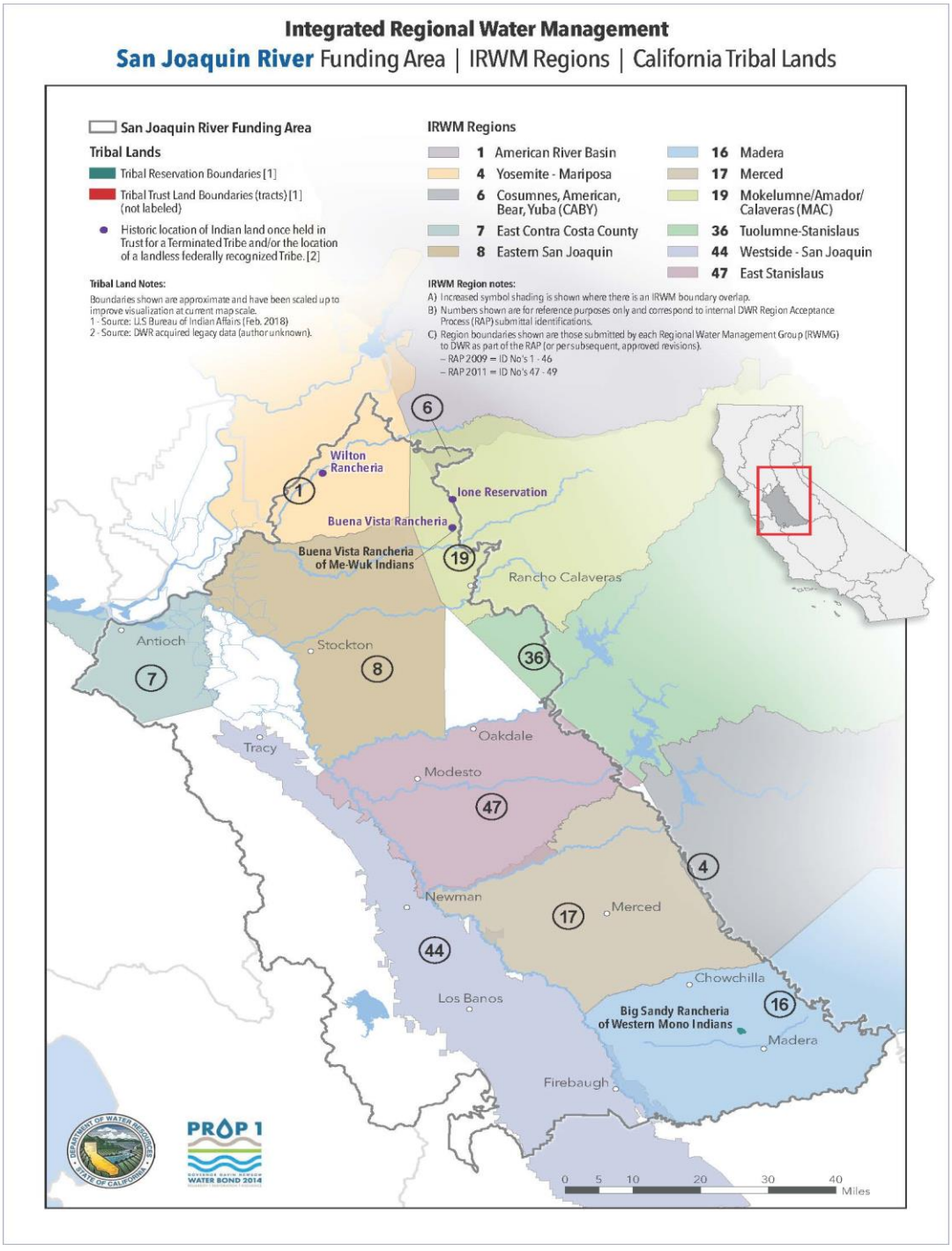


San Joaquin River Funding Area

IRWM Regions:

American River Basin, Eastern San Joaquin, East Contra Costa County, East Stanislaus, Merced, Westside-San Joaquin, Madera

Figure 11. San Joaquin River Funding Area Map



Physical Characteristics

The funding area includes the San Joaquin River and its lower drainage area. Roughly half of the Sacramento-San Joaquin Delta falls within the funding area. Water supplies in the funding area include both surface water and groundwater. Along the west side of the funding area, the Delta-Mendota Canal and the California Aqueduct carry Central Valley Project (CVP) and State Water Project (SWP) water supplies south for municipal and agricultural use. The tributaries of the San Joaquin River also provide surface water supply to the region. Water infrastructure includes reservoirs, canals, levees, aqueducts, pipelines, and wells that provide water supply and flood management to the San Joaquin Valley. Around 40 percent of the water supply in the region comes from groundwater aquifers, many of which are critically overdrafted. Alluvial aquifers underlie the valley floor to the east and west of the San Joaquin River. These aquifers are tapped by drinking water and agricultural supply wells, as well as private domestic wells. Some urban and small-stream flooding is common with each large storm, with more damaging flooding possible during more extreme events. Other vulnerabilities related to climate resiliency include climate-sensitive crops, inadequate water storage, and a lack of backup water supplies in the face of drought.

Community Characteristics

The funding area is generally rural, with scattered urban areas where the majority of the population resides. Many counties have a large number of Hispanic or Latino residents, with the proportion in some counties exceeding 50 percent. Land use in the region is mainly agricultural in nature, with a diverse array of crops grown in the funding area. One hundred twenty-three disadvantaged communities have been identified in the region, of which 57 are severely disadvantaged. More than half of the population meets the definition of economically disadvantaged. Almost all economically disadvantaged communities rely on groundwater for their water supply. Over half of the funding area's population is considered to have water supply vulnerability, with one-third relying on a single water source. Additionally, of the 89 disadvantaged communities that have water systems (the other 34 being private well communities), 22 percent are out of compliance for water quality standards. The main water quality issues for systems that are out of compliance are arsenic and 1,2,3-Trichloropropane (1,2,3-TCP) contamination. Fourteen disadvantaged communities have consolidated their

water systems with a larger one (most often an adjacent city's), to secure a more sustainable, higher quality water source.

Opportunities Realized from Funding Area-wide Needs Assessments

Expand data gathering and data management efforts.

- Gather and incorporate data for other types of water systems (e.g., school water systems or stormwater facilities) and water system characteristics (e.g., rate affordability, private well depth and water quality, or metering).
- Establish a free water sampling and testing program for low-income households relying on private domestic wells to provide them with water quality information.
- Gather information to identify additional disadvantaged community areas that may not have been included in the data sources accessed for this document, primarily through outreach and income surveys.
- Utilize existing drinking water data to identify persistent, noncompliant water systems, prioritizing assistance to the water systems based on targeted criteria, and provide strategies to restore safe and reliable drinking water to communities.
- Establish water metering programs to help communities reduce water usage.

Increase disadvantaged community and Tribal engagement.

- Establish an outreach and education program to implement community water solutions. This may include assisting with project identification, project development, and funding applications.
- Appoint community leaders who have expressed interest in participating to the IRWM Stakeholder Advisory Committee.
- Consider potential ways to bridge identified barriers to underrepresented community participation and foster IRWM group understanding of community needs.

- Support participation by allocating funds to help community members attend meetings.
- Eliminate language barriers by ensuring the availability of translated materials and translation services.
- Encourage utilities, water districts, and municipal agencies to incorporate these findings into their outreach plans and support project development and implementation.

Technical assistance to improve disadvantaged community capacity.

- Provide assistance to help communities identify, develop, and submit funding requests.

Water system consolidations to resolve water quality and supply issues.

- Pursue consolidation opportunities for water systems that consistently fail to provide safe drinking water. These systems can (or may be mandated to) consolidate with other public water systems to resolve water quality issues.

Challenges Encountered or Identified Through the Needs Assessment Process

Insufficient water supply and a lack of redundancy or reliability.

- Water systems that are considered the most vulnerable are those that rely on a single source of supply.
- Twenty-eight percent of disadvantaged communities in the region rely on individual private wells with no second water source, which increases vulnerability to changing water conditions.

Lack of access to safe drinking water.

- There are water quality issues impacting the region that may not be cause for the State to issue a compliance order. These include coliform maximum contaminant level (MCL) violations, insufficient water,

distribution system insufficiencies, and vulnerability resulting from constituents of concern near the MCL.

Wastewater issues threatening public health and the safety of the water supply.

- Wastewater challenges include reliance on failing septic systems, failing or insufficient sewer collection systems, and wastewater treatment systems that are unable to meet the facility's waste discharge requirements.

Difficulty facilitating comprehensive community participation and engagement.

- Facilitating community participation in workshops was difficult because of the workshop locations, the large geographic size of the funding area, travel distances, and budget constraints.

- Economic and financial constraints make it difficult to identify individuals who are willing to volunteer their time or pay for travel expenses out of pocket to attend meetings held many miles away.

Need for updates to aging infrastructure.

- As aging water infrastructure requires replacement, many water suppliers face financial difficulties, causing agencies to pass on their rising costs to customers. This can result in a financial burden on ratepayers or cause projects to be economically infeasible.

Affordability challenges are greater in small communities.

- The small size of many disadvantaged communities means that projects in these areas cannot take advantage of economies of scale and the cost implications to each customer are greater than for a larger community or city.

Much of the funding area is at high risk of damaging floods.

- Many economically impoverished areas in the region do not have a flood control agency responsible for implementing projects that would lessen vulnerability to flooding.

Tribal Engagement

California Indian Tribes in the San Joaquin River Funding Area.

- Local IRWM outreach has not identified any federally recognized Tribal governments based in the funding area.
- Non-federally recognized California Indian Tribes and other Tribal interests in the area have not yet been identified.

Approach to Tribal engagement.

- Within the funding area, individual IRWM regions were responsible for outreach and engagement.

Challenges encountered through the Tribal engagement process.

- Because of the forced removal of Indigenous peoples, Tribal governments may not be physically located in the areas they consider to be their homelands. It can be unclear how best to contact Tribal governments, particularly non-federally recognized California Indian Tribes.
- Underrepresented communities, including California Indian Tribes, have not historically been engaged in water management. Therefore, opportunities and best practices for engagement are not widely shared or available.
- Tribal outreach was left up to individual IRWM regions, which may not have had the capacity for in-depth searches of Tribal interests or have understood how to conduct such searches.

Opportunities identified to improve Tribal engagement.

- The funding area may improve Tribal outreach by identifying Tribal interests and appropriate points of contact for the funding area or IRWM regions to reach out to.
- Because there are few federally reserved trust lands and Tribal interests may span multiple IRWM regions, it may be helpful for a Tribal engagement effort to be coordinated across the funding area.

- It may be helpful to consult with funding areas that were able to engage California Indian Tribes in a meaningful way and learn about their best practices.

Program Successes Comments Received from Funding Area Representatives

- The DACTI Program allowed for working relationships with agencies throughout the funding area that would not have otherwise developed. This led to an agreement to split the implementation funding, something that had never happened in the past.

- Some groups and individuals have become newly aware of IRWM, and they have provided input.

- One of the region's projects will result in a new water source for a disadvantaged community.

To learn more about the San Joaquin River Funding Area Disadvantaged Community Involvement Program, contact Katie Kelley at kkelley@ccwater.com.

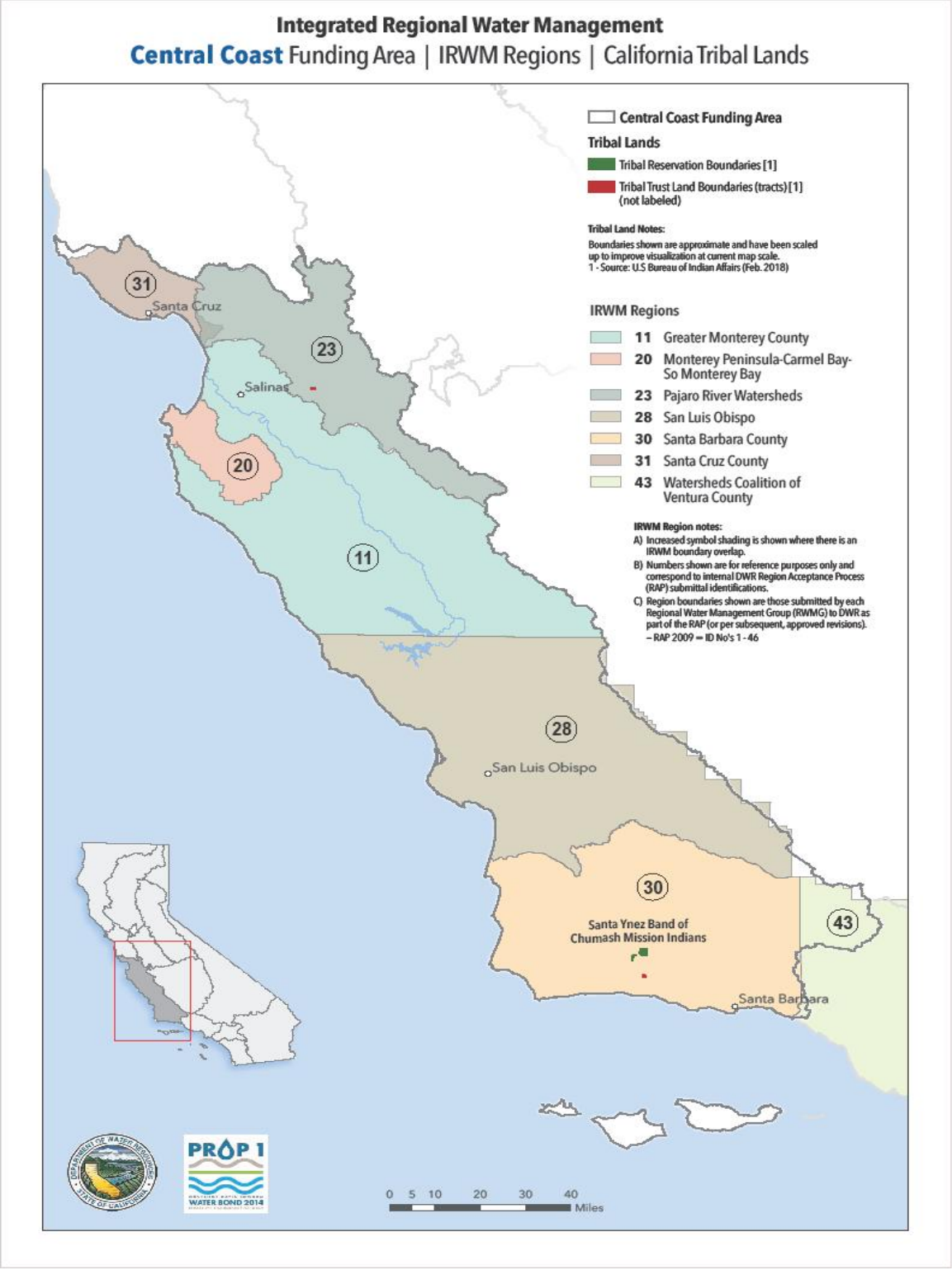


Central Coast Funding Area

IRWM Regions:

Santa Cruz County, Pajaro River Watershed, Monterey Peninsula-Carmel Bay-So. Monterey Bay, Greater Monterey County, San Luis Obispo, Santa Barbara County

Figure 12. Central Coast Funding Area Map



Physical Characteristics

The Central Coast Funding Area is a large and diverse geographic area that covers approximately 11,300 square miles (California Department of Water Resources 2015). Much of the funding area is within the southern Coast Range, extending from Monterey Bay to Santa Barbara. The area has a Mediterranean climate but is variable in microclimate, topography, geology, hydrology, and land use. Precipitation in this region ranges from approximately 12-24 inches per year, with the Santa Cruz Mountains receiving over 55 inches per year. Sources of water include groundwater, surface water from rivers and streams, imported water, recycled water, and a small amount of desalinated water. The Central Coast hydrologic region is the region most highly dependent on groundwater in the state, with an average of 86 percent of the annual water supply (1.1 million acre-feet) coming from groundwater. Most of water used in the region supports agriculture (approximately 80 percent of total use) and urban uses. The most prevalent groundwater contaminants affecting community drinking water wells in the region include nitrate (primarily from agriculture) and arsenic (naturally occurring). Naturally occurring hexavalent chromium is present in the northern IRWM regions. Agricultural runoff is a major source of groundwater contamination in the region, causing increase in water salinity, with shallower domestic wells are the most susceptible to contaminates. Twenty groundwater basins are in critical overdraft, which has resulted in seawater intrusion in some coastal basins; further increasing groundwater salinity. In addition, sea level rise from climate change poses a serious threat for many coastal communities in the Central Coast Funding Area, including risk of coastal inundation and risk to coastal water supplies.

Figure 13. Watsonville Wetlands Watch Restoration and Water Quality Technician, Xochitl Garcia, shares water quality data with tour participants, July 3, 2019



Community Characteristics

The Central Coast is predominantly rural, dotted with municipalities and urbanized areas. Land use and associated water use in the Pajaro, Greater Monterey County, San Luis Obispo, and Santa Barbara regions are chiefly agricultural, including heavily cultivated areas and ranching. Land use in the Santa Cruz and Monterey Peninsula regions are chiefly rural residential and urban. Based on the 2020 census, the population of the Central Coast Funding Area is approximately 1.5 million. Approximately 65 percent of residents are clustered in the incorporated cities, such as Santa Barbara, Santa Maria, Santa Cruz, San Luis Obispo, Salinas, Monterey, and Watsonville. Approximately one in four residents in the Central Coast Funding Area are economically disadvantaged. Residents in urban and suburban areas are generally located within service areas of large public water purveyors and wastewater utilities. Residents in rural areas and unincorporated areas may receive water and wastewater service from smaller local utilities, or small water systems, or they may rely on private domestic wells (which are not regulated by the State or counties) and on-site septic systems. Domestic wells are often more susceptible to contamination since they generally tap shallower groundwater aquifers. The high cost of living in the Central Coast and a lack of affordable housing, particularly in coastal communities, are primary drivers of high poverty rates in the region. The region also has a large population of people experiencing

homelessness. The 2022 Continuum of Care Point-in-Time survey of sheltered and unsheltered people experiencing homelessness counted 8,113 individuals in the funding area, with approximately 74 percent unsheltered — meaning individuals that live outside, with no shelter facilities. There is one federally recognized California Indian Tribe with land in the funding area: the Santa Ynez Band of Chumash Indians, located in the Santa Barbara IRWM Region and having approximately 250 residents living on reservation. There are also multiple non-federally recognized California Indian Tribes in the funding Area.

Opportunities Realized from Funding Area-wide Needs Assessments

Increase disadvantaged community and Tribal engagement.

- Continued outreach to, and partnership with, disadvantaged communities by Regional Water Management Groups.
- Expansion of partnerships with the Tribal communities, including use of traditional knowledge to help guide local water and resource management.

Improve water supply reliability and water quality.

- Consolidate small water systems with nearby cities or larger utilities or combine smaller water systems and private wells when consolidation with a large utility is not possible.
- Encourage virtual consolidations by a service provider or network of service providers to support a facility or facilities and coordinate with larger entities for operations and/or support.
- Make improvements to outdated and unregulated systems.
- Conduct outreach and education to increase water conservation. This is the least expensive means to increase water supply and reduce costs from water treatment and distribution.

Coordinate with larger efforts and plan proactively.

- Ongoing coordination between IRWM planning and various climate change adaptation and resiliency planning efforts could include further assessment of climate change impacts on disadvantaged communities.
- Plan to improve water quality of waterways and wetlands as well as related efforts regarding access and opportunities for nature-based outdoor recreation/trails in and near low-income communities.
- Increase alignment and coordination with local groundwater sustainability agencies to advance common goals and objectives, projects, and management actions related to disadvantaged communities.
- Coordinate with the Central Coast Regional Water Quality Control Board's environmental justice initiatives and Free Well Testing Program for domestic wells.

Increase community capacity.

- Create local community and institutional capacity and build partnerships and trust between community members, California Indian Tribes, and local water agencies.
- Build self-reliance and create local jobs for residents of economically burdened areas by providing technical assistance and trainings, for example, on how to operate and maintain water and wastewater systems, rate adjustments, board management, and succession planning.
- Share knowledge and funding strategies, as many of these communities are in similar situations trying to meet the same regulations.

Challenges Encountered or Identified Through the Needs Assessment Process

Flaws with census-based identification of disadvantaged communities.

- Disadvantaged neighborhoods are often intermixed with more affluent neighborhoods within a single census designation, making identification based on census geography difficult.
- Overcrowding can significantly skew median household income results. It is not uncommon for several low-income families to occupy a single household to minimize household living expenses.

Water quality issues.

- Issues with contaminated drinking water (primarily nitrate) continues to be a challenge, particularly in agricultural areas.
- Seawater intrusion is a significant problem for coastal groundwater basins.

Difficulty ensuring adequate water supply.

- Many disadvantaged communities are geographically isolated, making consolidation or emergency supply agreements with a larger utility, or between small systems, challenging.
- Small water systems often lack a backup source of water which may increase the frequency of service disruptions in times of drought, damage from fires or even routine system maintenance.
- Addressing groundwater overdraft continues to pose major challenges to local resource managers.
- Areas that rely solely upon surface water will be increasingly vulnerable to extended droughts as the climate changes.

Need for updates to aging infrastructure.

- There are substantial costs to upgrade and replace aging infrastructure, primarily borne by the ratepayers, which can be quite burdensome for low-income residents.
- Many small water systems rely on reactive fixes to infrastructure crises rather than proactive maintenance planning, resulting in lapses in water supply and quality.
- There is the need to improve water system resiliency to adapt to climate change. This is challenging for large water utilities, and even more so for small systems in economically disadvantaged communities.
- Proposed (2022) drinking water quality standards for hexavalent chromium will require upgrades to treatment facilities for systems supplied by contaminated aquifers, this may increase rates.

Affordability challenges in communities throughout the funding area.

- Many disadvantaged community water systems experience low revenues and high delinquency rates. Such systems cannot afford to adjust rates to cover day-to-day operations and maintenance, putting the community in a position of not qualifying for grant funds because they are not charging enough.
- Communities that face the need to manufacture water will result in increased water cost which disproportionately impacts DACs.
- Publicly owned utilities are restricted from providing special rate tiers for low-income residents, so public agencies are currently limited in their ability to offer qualifying low-income residents rate relief.

Lack of technical, managerial, and financial capacity.

- There is an ongoing need for better technical, managerial, and financial support for small water and wastewater utilities. Small communities often lack the capacity to apply for financial assistance.
- There are few entities willing and/or able to act as project sponsors to implement grant-funded projects in disadvantaged communities.

- Many small, disadvantaged community water systems are unable to afford certified operators.

Challenges to effective outreach.

- There is a general deficit of information about water supply systems in rural areas, with many households relying on unregulated private wells and septic systems.
- The geographic distance between communities, particularly those located in rural areas, and where IRWM meetings are held, has proven to be a barrier to IRWM participation.
- There have been low response rates to household income surveys, especially in communities with high numbers of people who are undocumented and are not proficient in English.

Figure 14. Information collection for the Cuyamaca regional needs assessment



Tribal Engagement

California Indian Tribes in the Central Coast Funding Area.

- There is one federally recognized California Indian Tribe with land in the funding area, the Santa Ynez Band of Chumash Indians, located in the Santa Barbara IRWM Region.
- There are also multiple non-federally recognized California Indian Tribes in the funding area.

Tribal Engagement Status.

- The Santa Ynez Band of Chumash Indians is a member of the Santa Barbara IRWM Regional Water Management Group (RWMG). The Coastal Band of Chumash are not fully engaged in the IRWM Program and that remains a developing edge for the RWMG.
- In multiple IRWM regions, Tribal members are identified as stakeholders and informed of IRWM activities via outreach, such as emails and meeting notifications but are not formally engaged as members.
- Tribal engagement with the Amah Mutsun Tribe was initiated in 2020 in the Santa Cruz, Pajaro River Watershed, and Greater Monterey County IRWM regions.

Challenges identified through the Tribal engagement process.

- The Santa Ynez Band of Chumash Indians has historically been vulnerable to displacement, economic instability, educational setbacks, and health issues.
- There has been a historical lack of sufficient infrastructure on the Santa Ynez Reservation. Wastewater treatment infrastructure has been self-funded and built by the Santa Ynez Tribe. The Santa Ynez Tribe owns and operates the only water recycling facility in the Santa Ynez Valley.

Opportunities identified through the Tribal engagement process.

There are opportunities for the Santa Ynez Band of Chumash Indians to become more involved in policy development and IRWM engagement,

including providing increased understanding and application of traditional ecological knowledge in the development of policy and projects.

- Engage Amah Mutsun Tribal representatives to enhance their participation as active stakeholders in the IRWM regions covering their traditional territory.

- Identify opportunities to advance issues of common interest (e.g., stewardship of waterways and associated ecosystems).

- Increase knowledge related to traditional and beneficial uses of water-related cultural resources and apply this knowledge to the development of stewardship activities and project development goals.

- Regional Water Management Groups have strengthened communication and expanded partnerships with underserved communities and small system utilities in the funding area. They have also increased the knowledge and understanding of community needs.

- The Program has increased IRWM regional coordination in the Central Coast Funding Area.

- Additional community needs have been identified in the needs assessment process that can be addressed through implementing projects that might have otherwise been overlooked.

- The DACTI Program has helped identify and advance projects by supporting preliminary engineering and environmental studies, thereby positioning those projects to apply for other funding opportunities through the Drinking Water State Revolving Fund, U.S. Department of Agriculture, U.S. Bureau of Reclamation, and other State and federal funding programs.

- Work in the funding area has provided a clearer baseline ethnographic understanding of the Central Coast Region and highlighted areas for increased outreach, engagement, and assessment.

- Funds from the DACTI Program provided trainings to local community residents on maintaining local water systems and developing financial management systems to collect and track revenue, thereby helping to create local jobs.

- RWMGs have identified other vulnerable communities and populations that are only involved to a limited degree and need to be included in the IRWM dialogue, such as the unhoused/unsheltered communities and subsistence fishing communities.
- Grant funding has reduced some capital investment effects on rates in some locations.

To learn more about the Central Coast Funding Area Disadvantaged Community Involvement Program, contact Tim Carson at tcarson@cfscc.org.

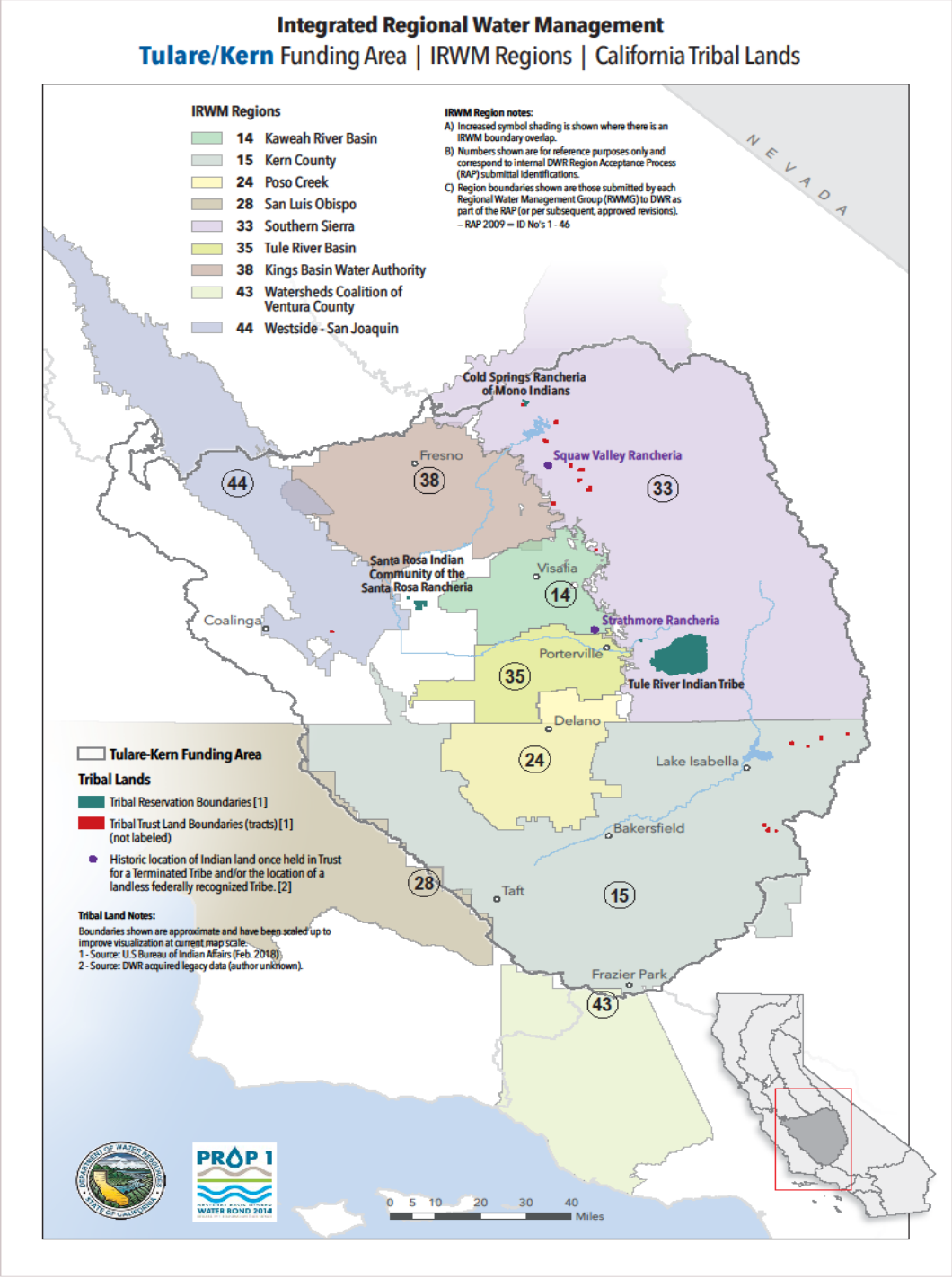


Tulare Kern Funding Area

IRWM Regions:

Kings Basin Water Authority, Kaweah River Basin, Tule River Basin, Westside-San Joaquin, Southern Sierra, Poso Creek, Kern County

Figure 15. Tulare Kern Funding Area Map



Physical Characteristics

The Tulare Kern Funding Area boundary is based on the Tulare Lake Hydrologic Region. The Tulare Basin hydrologic unit includes valley floor alluvial fans of the Kings, Kaweah, Tule, and Kern rivers. The four major southern Sierra rivers, as well as several lesser streams, all flow west across the Central Valley into the Tulare Basin's terminal lakes. The Tulare Basin receives water from five sources: precipitation, runoff from local rivers and streams, groundwater, State Water Project (SWP) deliveries, and Central Valley Project (CVP) deliveries. During much of the time, irrigation and other water supply requirements determine the quantity and movement of water in the Tulare Basin. In years of high winter rainfall and spring snowmelt runoff, flood control concerns influence water movement. In average and drier years, surface water moves throughout the basin primarily by gravity flow in natural stream channels and constructed canals or ditches. In addition to the four main rivers, surface water is provided by water conveyance facilities in the region, including the California Aqueduct, the Friant-Kern Canal, and the Cross Valley Canal. Groundwater typically accounts for 33 percent of the region's annual water supply. Climate change vulnerabilities include an increased chance of flood and stormwater impacts, along with an increased probability of wells running dry as a result of drought.

Community Characteristics

The funding area includes the entirety of Tulare and Kings counties, as well as the majority of Fresno and Kern counties. There are 355 disadvantaged communities that have been identified in the region, with 226 of those being severely disadvantaged. The primary water source for drinking water supply in the region is groundwater, while most of the region's surface water is used for agricultural purposes. Land use in the funding area is primarily agricultural; however, urban areas are expanding as the population in the region grows. Urban development is mostly concentrated in the metropolitan areas of Bakersfield, Fresno, Porterville, Hanford, Tulare, and Visalia. About 30 percent of the land in the region is owned by State and federal government agencies. Many of the disadvantaged communities in the region are in areas where the groundwater quality is poor. The main groundwater contaminants are 1,2,3-trichloropropane (1,2,3-TCP), arsenic, and nitrate.

Opportunities Realized from Funding Area-wide Needs Assessments

Consolidate small sewer and water systems with larger systems.

- System consolidation improves economies of scale by having more connections sharing expenses, resulting in lower costs for individual customers.
- System consolidation is beneficial for sharing technical and managerial expertise and can also help with water quality and quantity issues.

Build or improve stormwater facilities.

- Stormwater facilities can maximize benefits by capturing and using stormwater for irrigation or groundwater recharge, potentially reducing demand for imported water or groundwater, in addition to reducing flood risk and public exposure to vector-borne diseases.

Utilize tools for information sharing.

- A web mapping tool was developed to provide a mapping interface for users to access the data collected through the needs assessment. The tool provided various data sets in a single interface, which is useful for identifying water needs from both a community and regional level.

Optimize funding opportunities.

- Communities and technical assistance providers should continue to seek State, local, and federal funding sources to address needs.

Continue to engage disadvantaged communities and California Indian Tribes.

- IRWM regions should continue to engage disadvantaged communities and California Indian Tribes in the planning process, beyond lifespan of the DACTI Program.

Utilize water transfers to supplement water supply.

- Water transfers can be one of the water management tools used to enhance flexibility in the allocation and use of water in California. They

can be particularly useful for meeting critical needs during drought periods.

Challenges Encountered or Identified Through the Needs Assessment Process

Limited water supply reliability.

- Communities that rely on a single water source are vulnerable to failure of the source.
- Almost half of the disadvantaged communities in the region rely on a single water source or private wells.

Water quality issues throughout the funding area.

- It can take several years to acquire a new source of water or implement a treatment process to remove contaminants once a water source has been identified as being out of compliance.
- Without remediation, some systems currently in compliance may be vulnerable to a water quality issue in the near future.

Need for updates to aging infrastructure.

- Many disadvantaged communities rely on individual septic systems, which are often old and failing, improperly constructed, or not designed to remove nitrogen from the waste system.
- Aging water infrastructure in communities throughout the funding area can, and has, led to system or pump failures resulting in a decrease in water quality, low water pressure, water losses, and water outages.

Vulnerabilities of private well communities.

- Data gaps on the location of wells and the quality and quantity of the water being pumped make it difficult to fully understand the available groundwater resources in the region.
- Communities on private wells are more susceptible to changes in groundwater conditions, drought impacts, and water quality concerns.

Affordability challenges are significant in many disadvantaged communities.

- Many communities have water and sewer rates that exceed the affordability threshold of 1.5 percent of the median household income.

Funding is lacking to offset increasingly expensive operation and maintenance costs.

- It is challenging to properly operate and maintain the water and sewer infrastructure in small water systems that lack economies of scale.

Lack of managerial capacity for many disadvantaged community water systems.

- There is a lack of technical, managerial, and financial capacity in water and wastewater providers in many communities.
- Over 90 percent of disadvantaged communities in the region are unincorporated, often resulting in less capacity both managerially and financially.

Variety of issues related to wastewater systems.

- Wastewater system issues include reliance on failing or insufficient sewer collection systems and wastewater treatment systems that struggle to meet limitations set forth in the facilities' waste discharge requirements.

Tribal Engagement

California Indian Tribes in the Tulare Kern Funding Area.

- Through the development of the Tribal Engagement Plan, 13 California Indian Tribes have been identified within the funding area.

Approach to Tribal engagement.

- The initial invitation to nominate projects to receive project development funds was disseminated to all disadvantaged community and Tribal stakeholders in the funding area.

- The California Native American Heritage Commission was contacted to gain a better understanding of the Tribal communities and Tribal interests in the funding area.

- A Tribal engagement plan was prepared, with input from California Indian Tribes, to aid the funding area and IRWM regions and include Tribal engagement in future water management.

Challenges encountered through the Tribal engagement process.

- Tribal participation in funding opportunities has been low. Additional outreach and engagement efforts are needed to promote awareness and the benefits of the IRWM Program and Disadvantaged Community and Tribal Involvement Program.
- Because of the forced removal of Indigenous peoples, Tribal governments may not be physically located in the areas that they consider to be their homelands.
- Some Tribal staff have large workloads resulting from understaffing, which can make it difficult for them to respond to requests.
- Staff turnover following Tribal elections can make it difficult to identify the correct contact person within a California Indian Tribe.

Opportunities identified through the Tribal engagement process.

- Attend Tribal Council Meetings to get to know Tribal members and leaders in person. U.S. Forest Service meetings held in collaboration with California Indian Tribes also provide opportunities for information sharing.
- Develop educational materials describing IRWM, local efforts, contacts, and case studies of successful Tribal projects to support in-person outreach efforts.
- Continue engaging and communicating with California Indian Tribes to build strong, long-term relationships, respect California Indian Tribes' decisions if they choose not to participate, and keep them informed of projects in or near their ancestral lands.
- Provide technical assistance in the form of direct help with project development or educational workshops on the IRWM Program.

Program Successes Comments Received from Funding Area Representatives

- Twenty-six projects are currently being conducted under the project development activity of the DACTI Program to prepare for Round 2 of Proposition 1 Implementation funding.
- Working with local partners to conduct outreach in communities allowed the funding area to build off of relationships that already existed between these organizations and community members.
- Establishing a strong group of nonprofit organizations from the beginning helped with the community engagement aspect of the program and started building relationships right from the start.

To learn more about the Tulare Kern Funding Area Disadvantaged Community Involvement Program, contact Denise England at dengland@tularecounty.ca.gov.

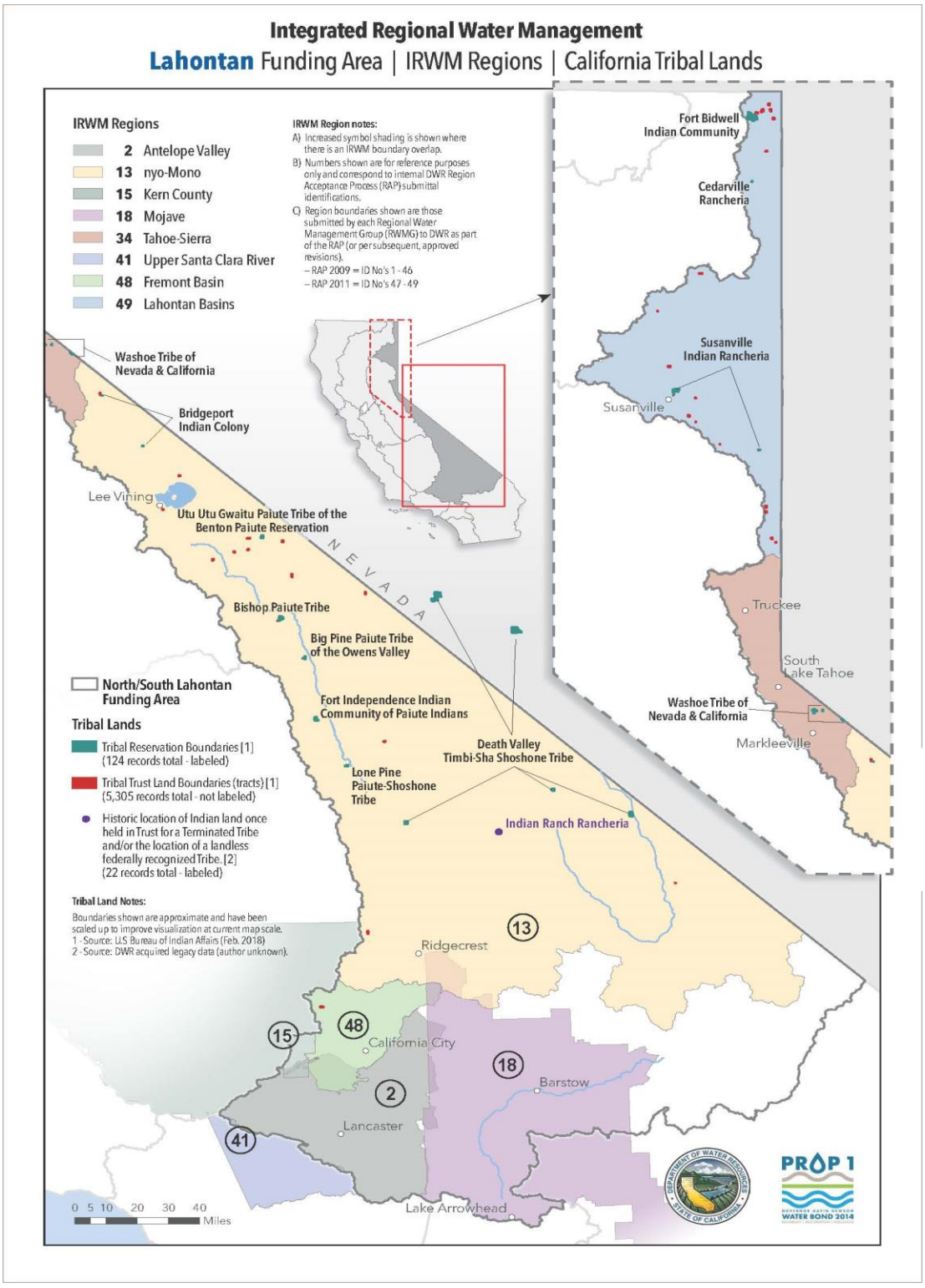


Lahontan Funding Area

IRWM Regions:

Lahontan Basins, Tahoe-Sierra, Inyo-Mono, Fremont Basin, Mojave, Antelope Valley, Kern County

Figure 16. Lahontan Funding Area Map



Physical Characteristics

North Lahontan

For the purposes of this report, the northern region of the Lahontan Funding Area includes the Lahontan Basins and Tahoe-Sierra IRWM regions. There are 18 groundwater basins within these two regions. The northern region consists of the Susan River, Madeline Plains, and Smoke Creek watersheds, as well as the Truckee River system. All or most of the water used in the region occurs naturally within the region as surface water and groundwater accumulated from rain and snow that falls in the surrounding mountains.

South Lahontan

For the purposes of this report, the southern region of the Lahontan Funding Area includes the Inyo-Mono, Fremont Basin, Antelope Valley, and Mojave IRWM regions. There are numerous groundwater basins in the southern region of the funding area, with 63 in the Inyo-Mono region alone. Some of these basins are experiencing declines in water levels. The east side of the Sierra Nevada is in a rain shadow and receives less precipitation than the west side. Water quality varies throughout the southern region, with some areas having excellent water quality while others experience issues with contaminants such as arsenic, nitrates, boron, and others.

Community Characteristics

North Lahontan

Most of the urban areas and communities in the northern part of the region are clustered around Lake Tahoe or are located along highways. A significant portion of the land in this region is publicly managed. Communities in the region are economically dependent on agriculture and tourism and recreation related to the natural resources of the area. There is little to no reliance on imported water in the northern Lahontan area, since a significant portion of the headwaters of the state originate in this region.

South Lahontan

Major land use categories in the southern part of the region include residential, commercial, industrial, agricultural, and open space public land uses. Open space is the dominant land use within much of the area, the majority of which is owned and managed by federal, State, and other non-

local agencies. Much of the southern portion of the Lahontan Funding Area is remote and rural, with more urban areas in the Antelope Valley and Mojave IRWM regions. Many areas of the southern portion of the funding area rely on imported water, mostly from the State Water Project, to meet demand. In some of the more populated areas, land use is shifting from agricultural to more residential and industrial, resulting in a shift in water use in those areas. There are many disadvantaged and severely disadvantaged communities in the region, with some IRWM groups reporting that over 70 percent of the communities in their region meet the disadvantaged or severely disadvantaged thresholds.

Figure 17. Keeler Community Services District, California Rural Water Association, and Inyo County meet to conduct a needs assessment



Opportunities Realized from Funding Area-Wide Needs Assessments

Improve data management and mapping.

- Both Lahontan basins and Inyo-Mono IRWM regions have contracted with Sierra Water Workgroup for interactive, GIS-based databases and mapping.

Access to more consistent funding.

- Acquire baseline funding for IRWM programs to ensure the continuation of all IRWM programs within the Lahontan Funding Area without relying solely on bond funding.

Increase awareness of regional needs at the State level.

- Increase communication with State government representatives to ensure the funding area is not being overlooked by State water managers because of its remoteness and distance from Sacramento.

Continue outreach efforts.

- Utilize relationships that have been developed, and continue outreach from IRWM programs to all communities, especially disadvantaged communities and California Indian Tribes.

Develop water infrastructure projects to improve water supply and quality.

- Develop opportunities for water recharge, banking, and conservation projects.
- Transition wastewater systems from septic to sewer to reduce risk of water contamination by septic systems.

Reduce operational costs.

- Increase the workforce of contract operators who can operate many different systems at once.

Utilize alternative power sources.

- Install solar power, or propane and diesel generators, for well pumping, to run water systems, or to provide a backup power source.
- Ensure water delivery during power outages with solar panels or generators for wells.

Provide training and technical assistance.

- Provide one-on-one technical assistance and project development support for leak detection, feasibility studies, and project planning.
- Provide training for rate analysis, establishing a capital improvement plan, budgeting, leak detection, and drought and emergency preparedness, among other topics.
- Provide training for new water operators and water system board members to increase their certification levels, in addition to maintaining the certification of current water operators.

Evaluate opportunities to improve water supply and quality.

- Consider installing central sewer systems to improve water quality.
- Consider water system consolidations with neighboring water districts.

Challenges Encountered or Identified Through the Needs Assessment Process

Need for updates to aging Infrastructure.

- Much of the infrastructure, particularly in smaller water systems, is antiquated and in need of updating or replacing.

Need for additional water storage and redundancy.

- Additional storage tanks and secondary wells are needed in some small water systems to provide system redundancy and more water supply reliability.
- There is concern about growth of communities, increased demand, and the effects they will have on water reliability in the region.

Limited capacity for water systems management.

- Many systems need help with technical, managerial, and financial elements such as capital improvement plans, rate studies, and board member training.

- Not all communities have funding to cover operations and maintenance costs to run their systems.

Remaining compliant under State regulations.

- Responding to new, increasingly stringent regulations is difficult for many small systems. This includes treating water that might be above a new MCL for a constituent.

Water quality issues in some regions of the funding area.

- Wells exceeding secondary MCLs for metals, nitrate/nitrite, chromium-6, arsenic, and total dissolved solids have been identified.
- Areas of the Lahontan Basin have high conductivity and salinity concentrations.

Risk of flooding in some communities.

- There are some areas in the region that experience localized flooding at the street or drains, often during large storms.

Concerns about water rights.

- There are water rights concerns related to pumping, drinking water, irrigation water, and surface water.

Lack of adequate water supply.

- In some areas, there is a lack of adequate water pressure or capacity for fire flow.
- Some water systems are too small to meet the demands in their communities.

Need for training.

- Water operators are aging out of their professions, and there is a need for training and certifying new operators.

Habitat degradation and poor air quality.

- Many areas need soil stabilization and revegetation to reduce dust issues.

Difficulty fostering effective community outreach.

- Because of the size of the individual IRWM regions, long travel distances make it difficult for community members to attend IRWM-related meetings.
- Helping and working with private well owners can be challenging.

Tribal Engagement

California Indian Tribes in the Lahontan Funding Area.

- There are at least 11 federally recognized California Indian Tribes with land in the funding area, as well as multiple non-federally recognized California Indian Tribes.

Approach to Tribal engagement.

- Existing relationships between IRWM practitioners and California Indian Tribes in the funding area were utilized to involve California Indian Tribes throughout the outreach process for the DACTI Program. Tribal information was included in the assessment of needs for water systems in the Inyo-Mono and Lahontan basins regions.

Challenges identified through the Tribal engagement process.

- Water pressure can be an issue.
- More funding and resources are needed for planning, design studies, upgrades, and maintenance.
- Impacts from nearby water management may be affecting water resources for California Indian Tribes.
- There is a need for technological upgrades for system monitoring and maintenance.

- Future development may be affected by water management challenges.

Opportunities identified through the Tribal engagement process.

- There is potential for consolidation or interconnection with neighboring systems that would increase water security while still allowing California Indian Tribes to manage and control their own systems.
- In-house engineering would bring down contractor/consultant costs.
- Increased fire resiliency could be achieved through training and hydrant system improvements.
- Addressing irrigation needs may benefit habitat.

Figure 18. Public outreach meeting held in Big Pine, with speakers representing Big Pine Community Services District, Big Pine Paiute Tribe, and Inyo County



Program Successes Comments Received from Funding Area Representatives

- Group operator training to maintain certifications is well attended. Mojave and Inyo-Mono IRWM both sponsor free operator training sessions conducted by California Rural Water Association.
- Technical assistance provided to disadvantaged communities and Tribal water systems has resulted in shovel-ready projects.
- Involvement of disadvantaged communities and California Indian Tribes in funding area IRWM programs has increased.
- There is still work to be done, but the profile of desert/rural/headwaters systems has been raised, and their needs have been differentiated from urban/Central Valley/coastal disadvantaged communities.

To learn more about the Lahontan Funding Area Disadvantaged Community Involvement Program, contact Dustin Hardwick dhardwick@calruralwater.org or Luis Carmona lcarmona@calruralwater.org

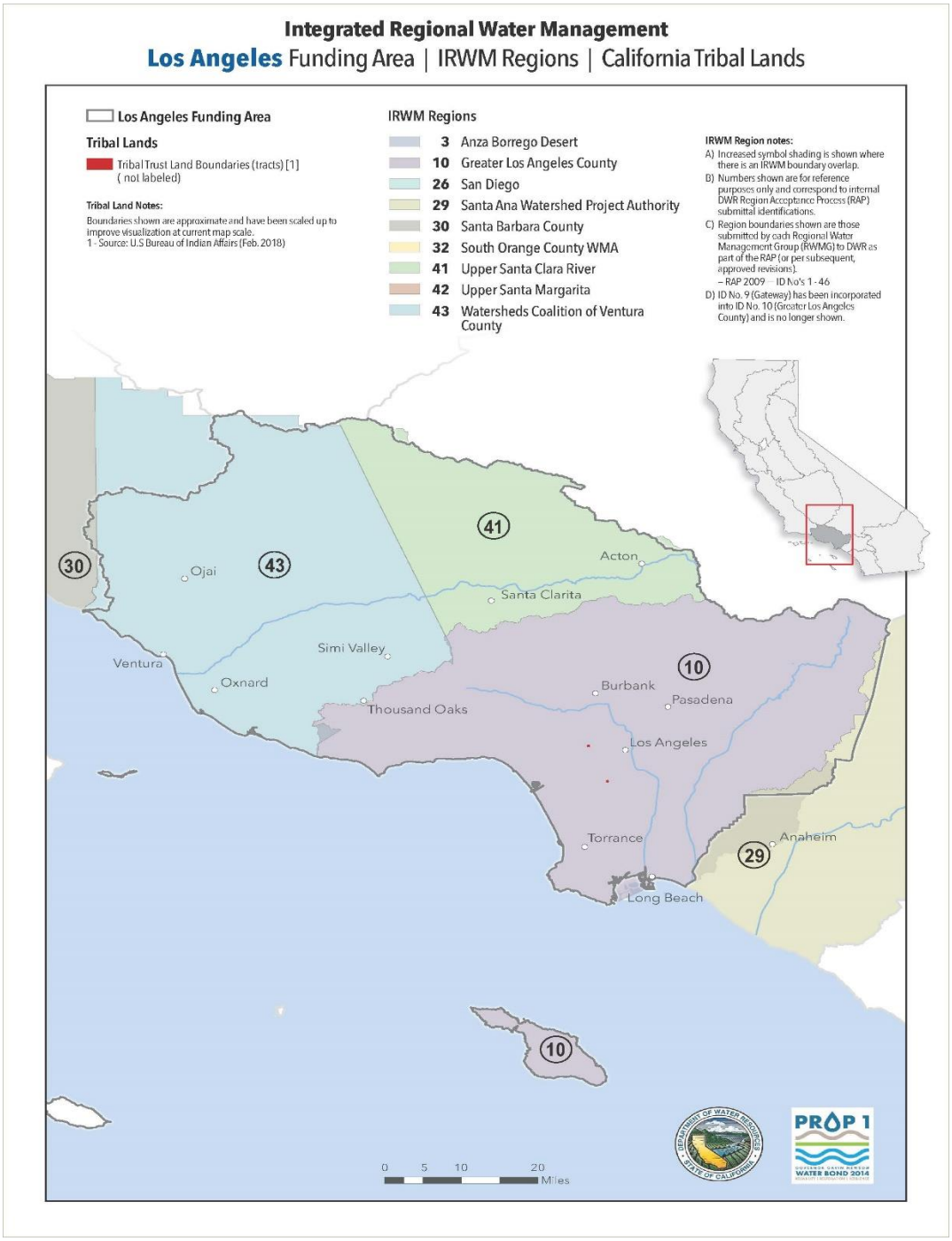


Los Angeles Funding Area

IRWM Regions:

Upper Santa Clara River, Greater Los Angeles County,
Watersheds Coalition of Ventura County

Figure 19. Los Angeles Funding Area Map



Physical Characteristics

The Los Angeles Funding Area consists of nine IRWM regions. This funding region includes three independent IRWM planning regions: Greater LA County (GLAC), Upper Santa Clara River (USCR), and Watersheds Coalition

of Ventura County (WCVC). GLAC IRWM contains some of the largest water agencies in the country and some of the smallest agencies in California. Based on the funding area's 2024 executive summary report, the GLAC Region consists of watersheds of the LA River, the San Gabriel River, and those that drain to the Santa Monica Bay including, the Malibu and Ballona Creek watersheds. These water bodies and lands are significant for California Indian Tribes, including the Tongva, Chumash, and Tataviam peoples, and are their unceded ancestral homeland.

The Watersheds Coalition of Ventura County (WCVC) covers the majority of land within the Ventura County boundary and includes three major watersheds that lie in the region: Ventura River, Santa Clara River and Calleguas Creek.

The Upper Santa Clara River (USCR) Watershed is comprised of the upper reaches of the Santa Clara River Watershed; which features the largest natural river remaining in Southern California.

While groundwater makes up a portion of the water used in the region, their water is either imported or recaptured from stormwater runoff.

Community Characteristics

The funding area includes 122 self-identified communities as well as 4 Tribal cultural boundaries, making this a highly diverse and populated region. For example, according to the 2020 Census, the population for Los Angeles County was over 10 million people and for Ventura County, the population was over 840,000 people. For the funding areas' outreach, GLAC held about 30 virtual community listening sessions and reached over 200,000 people via phone banking, texting and newsletter blasts, and completed over 3,500 online surveys. WCVC conducted three virtual outreach events, distributed about 29,000 bilingual newspapers and 4,500 outreach bookmarks, contacted over 1,500 people by phone, and completed over 600 community survey responses. USCR held five virtual events, distributed approximately 14,000 bilingual newspapers and 2,000 bookmarks, contacted about 650 residents by phone, and completed over 300 community survey responses. As a region, over 4,600 survey responses were collected to inform this process.

The Tribal Survey for the GLAC and WCVC regions. "The survey addressed various aspects, including the needs and strengths of these communities, obstacles to culturally appropriate and tribally specific water access, and

challenges related to equitable access to water, wastewater, and stormwater infrastructure benefits. Additionally, the survey sought to identify governance and decision-making processes within California Indian Tribes, along with engagement strategies and anticipated future challenges and opportunities."

The Tribal Needs Assessment for the USCR process included engagement in Tataviam cultural spaces and festival meetings and direct interactions, resulting in a final comprehensive Tribal report.

Opportunities Realized from Funding Area-wide Needs Assessments

The WaterTalks program began in 2018 and included 3 phases: (1) conduct outreach events to educate and engage disadvantaged communities; (2) compile and analyze data received during the outreach events and surveys; and (3) identify projects of implementation using the data from the Strength and Needs Assessment findings.

GLAC's Findings included: connections and relationships within the community, access to culture such as food and events, and the resilience of people. Findings focused on drinking water quality and to reinforce surface water quality as a priority.

- Create a drinking water grading system to reduce confusion around multiple water quality reports and help build trust between communities and water providers.
- Create and expand regional drinking water education programs to teach the public about their water providers.
- Water providers and/or trusted community partners should provide at-home water testing and infiltration systems.
- Continue to build policies and funding that allow local schools to provide green park space and offsite stormwater capture.
- Access resources to increase capacity for community members to take on leadership roles in water planning efforts.

Results from the WCVC/Ventura County Community Needs Assessment will inform future outreach and engagement in the following ways:

- Provide a database of contacts for future outreach and engagement.
- Help the County match suggested/potential projects with agencies and community groups in those areas.
- Assist community groups and the County with generating new project ideas that further help meet community needs.

Upper Santa Clara River

Based on the findings in the USCR region, here is a list of recommendations:

Enhance Community Engagement and Institutional Collaboration:

- Foster higher levels of community engagement regarding water-related issues.
- Encourage active participation in water-related stakeholder meetings to address specific issues like stormwater flooding and illegal developments affecting local water systems.
- Strengthen collaborations between community groups, public services, and nonprofits to address emerging water and community service needs.
- Leverage local educational institutions for community education and water agency outreach efforts.

Infrastructure Upgrades and Financial Planning:

Prioritize the upgrading of aging infrastructure to comply with new and shifting regulations.

Develop financial strategies to manage the costs associated with these upgrades, ensuring they don't overly burden community members' water rates.

Addressing Local Environmental Issues:

- Eliminate or mitigate water quality issues that impact groundwater supply.
- Implement solutions for areas with old septic systems.

Budget Forecasting and Resource Allocation:

- Improve multi-year budget forecasting to reduce unpredictability and ensure efficient allocation of resources toward critical projects and programs related to water.

Stormwater Management:

- Develop and implement effective stormwater management solutions in areas prone to flooding.

Challenges Encountered or Identified Through the Needs Assessment Process

From the Greater Los Angeles County issues and priorities focused on:

- Drinking water quality.
- Consistent, regular communication related to drinking water quality.
- Surface water quality.
- Coordination with local schools and development of community-driven programs that build capacity for projects, stewardship, and leadership programs.
- Barriers that continue to prevent community involvement in water planning.

The Needs Assessment Report for the WCVC region identified these water-related issues:

- Water contamination due to trash and industrial facilities.
- Drinking water quality.
- High cost of water.
- Water availability for fire suppression and agriculture.
- Access to clean, safe water.

- Inadequate wastewater collection and treatment.
- Drinking water availability.
- Recreational water safety.
- Flooding.
- Compliance with new regulatory requirements.

The Needs Assessment Report for the USCR IRWM Region identified these water-related issues:

- Poor drinking water quality.
- Lack of water available for fire and agriculture.
- Limited access to clean safe water.
- Strain on overburdened utility infrastructure due to new development.
- Failing septic systems.
- High water costs.
- Burdensome water quality regulations.
- Groundwater depletion and pollution.

With broader crossover water-related issues including climate change and more.

Tribal Engagement

- A Tribal Survey was created to expand on the Community Survey to express the unique needs of Tribal communities, designed by local Tribal water scholars.
- California Indian Tribes in the Greater Los Angeles County include the Chumash, Tataviam, Serrano, and Garielino/Tongva.

Opportunities identified through the Tribal engagement process.

- Create permanent Indigenous seats on regional water leadership committees and provide funding.
- Create capacity building partnerships with local California Indian Tribes and Indigenous-led organizations to support land and water repatriation and rehabilitation.
- Increase commitment from local agency and government leaders to not only support Tribal interests but to learn more about local Tribal communities.
- Define resources to increase and maintain Native communities' knowledge of laws and policies related to Indigenous rights and access to ceremonial land and water.

Challenges encountered through the Tribal engagement process.

GLAC

- Prioritize access to water for cultural and spiritual ceremonial purposes by creating or revising current policies to open up land and water spaces for Tribal members.
- California Indian Tribes are in need of safe spaces to gather, practice their culture, and educate non-native community members of their history and culture to undo the harm being done by modern ignorance.

WCVC

- Water access for drinking is accessible to half of the community, but issues with wastewater infrastructure and stormwater quality are prevalent.
- Barriers included lack of support, time/resources, communication gaps, disinterest, and insufficient water appreciation. 95% of the respondents indicated they lack knowledge of Ventura IRWM, hindering engagement. Some of the factors limiting cultural access included privatization of ancestral land, government roles, knowledge gaps, financial constraints, and environmental concerns. Lack of federal recognition was also mentioned as impacting government

involvement. 55% of the respondents reported receiving no outreach from representatives.

USCR

- The Tataviam (and their advisors) have identified cultural-environmental sites where projects, (like what was proposed for Robidoux and planned to be proposed for Kuruvungna Springs) could be, should be, supported to tie all these points together. Acknowledgement of the Indigenous land and water relationships is most important to identify and should be integral to co-development efforts with local municipalities and regional agencies. The importance of sharing the LA Funding Area executive summary report with the Fernandeño Tataviam Band of Mission Indians to continue dialogue and collaboration was also strongly encouraged.

Program Successes

Program Successes Comments Received from Funding Area Representatives

- The Los Angeles-Ventura Funding Area Needs Assessment Executive Summary consolidates data from three comprehensive regional Needs Assessment Reports and two specific Tribal Needs Assessment Reports. They are available online at https://watertalksca.org, through the duration of this program. The supplemental Needs Assessment Reports includes an analysis/finding from the Tribal communities.

- As included in the Executive Summary, on the WaterTalks website, “an interactive, public-facing dashboard was created for each region using the GIS maps, which houses the Community Needs Assessment information.” The data can be accessed through the links below:

Greater Los Angeles County Community Dashboard:
https://www.arcgis.com/apps/dashboards/d3932ac58646425daf9df0498e56cdc8

Watersheds Coalition of Ventura County Community Dashboard
https://www.arcgis.com/apps/dashboards/bb7774ddd2f64a59847fc6680056d09b

Upper Santa Clara River Community Dashboard
https://www.arcgis.com/apps/dashboards/e5c4ce02c43549928ac8a15bedff81e6

The funding area encourages community members to participate by visiting the WaterTalks website, https://watertalksca.org

Full Needs Assessment Reports

Greater Los Angeles County Community Strengths and Needs Assessment Report
https://watertalksca.org/wp-content/uploads/2023/01/WaterTalks_Needs-Assessment_single-page_FINAL_20221102.pdf

Watersheds Coalition of Ventura County Needs Assessment Report
https://watertalksca.org/wp-content/uploads/2023/01/Ventura-DACIP-Task-3-Summary-Report_Final_2023.pdf

Watersheds Coalition of Ventura County Tribal Water Needs Assessment Report
https://watertalksca.org/wp-content/uploads/2023/06/Ventura-IRWM-Survey-Report.pdf

Upper Santa Clara River Needs Assessment Report
https://watertalksca.org/wp-content/uploads/2023/01/USCR-DACIP-Task-3-Summary-Report_Final_2022.pdf

Upper Santa Clara River Tribal Water Needs Assessment Report
https://watertalksca.org/uscr

To learn more about the Los Angeles Funding Area Disadvantaged Community Involvement Program, contact Kevin Johnson at kejohnson@dpw.lacounty.gov or Lee Alexanderson at lalexanderson@dpw.lacounty.gov.

Needs assessment information and documents will also be accessible on the Greater Los Angeles County Region IRWM website:
http://www.lawaterplan.org/
and the Watersheds Coalition of Ventura County IRWM website:
http://wcvc.ventura.org/dcip.htm
as they become available.

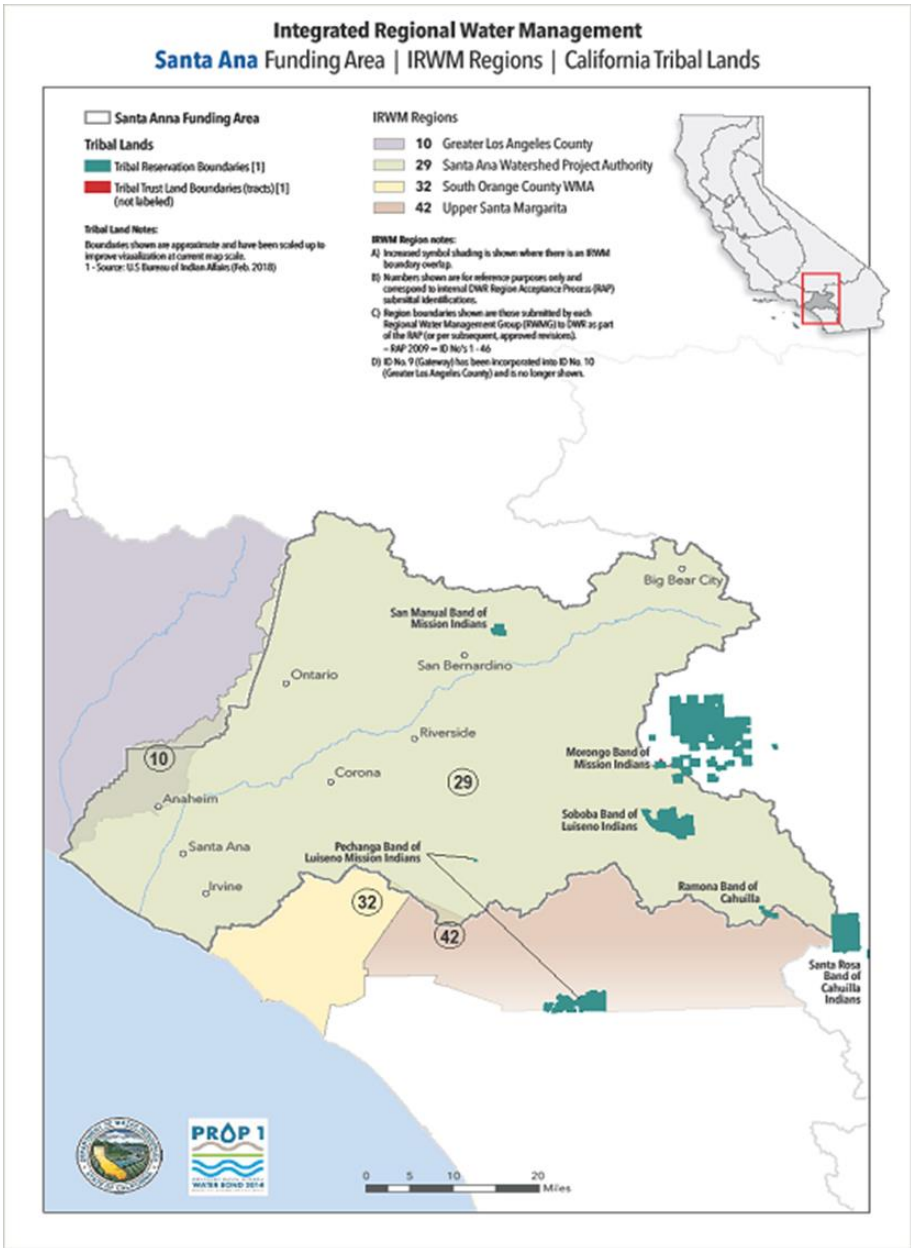


Santa Ana Funding Area

IRWM Region:

Santa Ana Watershed Project Authority

Figure 20. Santa Ana Funding Area Map



Physical Characteristics

The Santa Ana Funding Area includes multiple watersheds, with the Santa Ana River Watershed (watershed) being the largest in the area by a considerable margin. The watershed is the second largest in Southern California, draining a 2,840 square mile area. The Santa Ana River flows over 100 miles and drains the largest coastal stream system in Southern California. Runoff from irrigated landscapes and discharge from wastewater treatment plants change the volume, timing, and frequency of historical

surface flows, supporting perennial base flows in many parts of the developed Santa Ana River stream network. Water quality in the region tends to be high, with low concentrations of total dissolved solids, nitrates, and other pollutants. Groundwater is a major source of water supply in the watershed and is a key component for each agency in the watershed. None of the managed groundwater basins from which supply is sourced are in jeopardy of overdraft. There are about 40 groundwater basins in the watershed, many of which are interrelated. The Colorado River Aqueduct imports millions of acre-feet of water each year from the Colorado River westward into the Santa Ana River Watershed. About 35 percent of water is imported using the SWP and the Colorado River Aqueduct. Water is imported into the area by the Metropolitan Water District of Southern California, San Gorgonio Pass Water Agency, and San Bernardino Valley Municipal Water District. Currently the watershed recycles enough water to meet about 16 percent of the demand. Local surface water is largely seasonal: most of the water comes in the wet or rainy season and is dramatically reduced in the dry season to snowmelt, natural springs, and treated wastewater flows. Facilities such as dams and flood control detention basins divert and slow storm runoff, providing additional opportunity for groundwater replenishment. Changes in precipitation and runoff patterns will continue to increase the uncertainty of water supply and quality, flood management, and ecosystem functions. Climate change will cause an increase in wildfire risk, particularly in communities at the urban-wildland interface. Secondary impacts caused by the urban heat island effect include increased evapotranspiration, decreased water quality, and increased morbidity and mortality among vulnerable populations.

Community Characteristics

The Watershed is home to over 6 million people and includes major population centers in Orange, Riverside, and San Bernardino counties, as well as a small area of eastern Los Angeles County. The watershed contains one of the fastest-growing regions in California. Within the watershed, 1.7 million people meet the economically disadvantaged criteria. Nearly half of the watershed’s disadvantaged community members are Spanish speakers. The watershed includes over 100 water-related entities that provide drinking water to 98 percent of the population. For the most part, members of all communities in the Santa Ana River Watershed have access to safe drinking water; areas with unsafe drinking water are under management to ensure improvement. A small number of people have insufficient sanitation systems for their homes and businesses**.** The quality of wastewater-point discharges

to the river and tributaries has improved markedly in recent years as a result of increased water quality monitoring and cleanup technologies. Surface water contaminants include elevated but nontoxic levels of ammonia, increased salinity, and excessive nutrients like phosphorous and nitrogen. The nonpoint-source discharges coming from urban runoff can affect native freshwater fishes, making the issue of chronic, low-level pollution a major concern. The key groundwater quality issues in the watershed include the management of salts, nitrates, and contamination plumes, as well as the presence of nitrates, arsenic, perchlorate, and hexavalent chromium (chromium-6) in water supply wells. These salts accumulate mostly through imported water, residential and industrial use, and evaporation, but are also introduced to the water supply by way of agricultural fertilizers and septic tanks. Additionally, trichloroethene (TCE) and perchloroethene (PCE) (commonly used solvents) and perchlorate (which is found in fertilizer, fireworks, and explosives) are present in the watershed. All of these contaminants must be removed, using various treatment methods, before the water can be introduced into the water supply system.

Opportunities Realized from Funding Area-wide Needs Assessments

Increase engagement with disadvantaged communities and California Indian Tribes.

- Increase the amount of face-to-face community interactions and collaborative data gathering.
- Develop or strengthen relationships between residents and the institutions and decision-makers that serve them (e.g., government agencies, elected officials, water agencies, mutual water companies).
- Work with local constituents to identify language translation projects and offer translators for relevant public meetings.
- Facilitate education and training workshops to equip local community members, policymakers, and water agencies with the insight and resources necessary to take action toward a more inclusive process.
- Increase support for public agencies to improve how they listen to and communicate with members of the communities they serve.

Use traditional ecological and historical knowledge to guide water management.

- Native/Tribal communities can contribute to water management by sharing their knowledge to accurately recognize water's contribution to communities and help address how we balance development with the rights of water.

Emphasize community-focused water management.

- Encourage water agencies to work directly with community-based organizations to hear and respond to the localized concerns people have about their water.

- Facilitate more coordinated governance processes within and between agencies.

Figure 21. Community members participate in a listening session



Highlight integrated management programs that respect specific agency and system service area needs. Develop more effective communication.

- Use communication strategies, such as town hall meetings and social media, to address water management and quality concerns, increase civic involvement, and more accurately identify community needs.

Demonstrate the distribution of economic disadvantage in the funding area.

- Develop a way to more accurately map the geographic distribution of economically disadvantaged communities. The current method relies on census block mapping, which can often overlook neighborhood-scale income disparities.

Fund technical assistance projects.

- Support projects that direct technical and financial assistance to small water systems in order to ensure potable water supplies are meeting water quality standards consistently.

Challenges Encountered or Identified Through the Needs Assessment Process

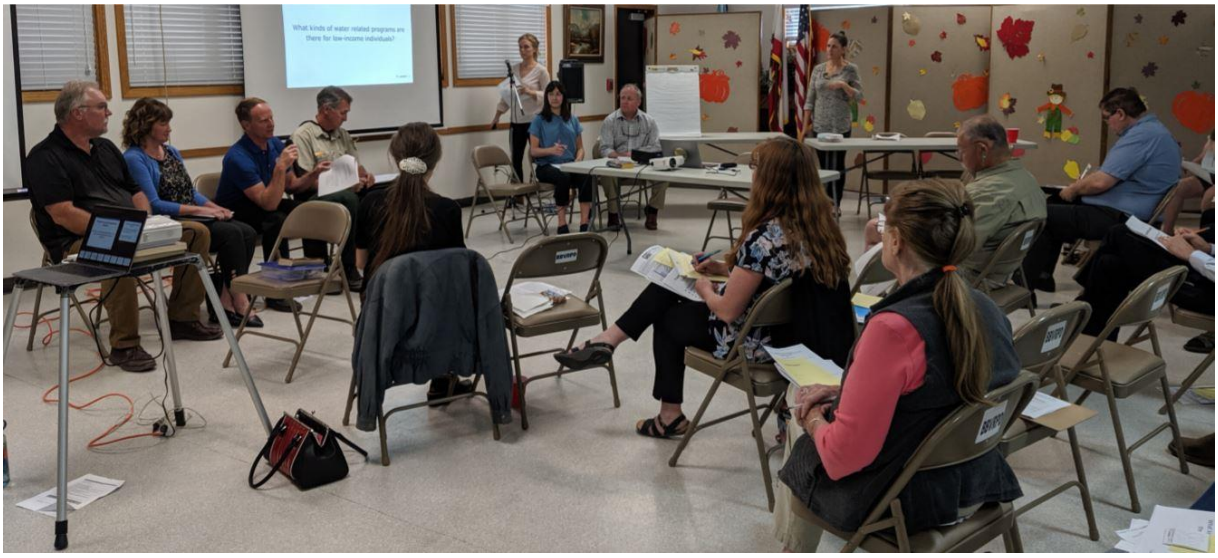
Common barriers to community engagement.

- Financial and time commitments can be prohibitive factors to participation in outreach events.
- Language barriers can cause some community members to be left out of the decision-making process.
- Lack of civic knowledge (e.g., knowing the “right” authority to reach out to or what a special district is) or a personal sense of political efficacy (feeling like they can effect change) can be barriers to engagement.

Lack of human and financial resources to address community needs.

- Smaller communities lack the tax base to support specialized staff and infrastructure retrofits.
- Community members have struggled to get help with issues such as flooding, poor tasting/smelling water, corroded water fixtures at schools, home infrastructure issues, and other problems.

Figure 22. Residents of Big Bear participate in a conversation with local water agencies



Need for more effective governance and communication.

- Elected officials face challenges coordinating internal departmental and external interjurisdictional relations, coordinating funding opportunities, reducing barriers to agency coordination, and communicating with diverse community groups.
- Lack of funding or staff time devoted to communications can limit connections between agencies and community members.
- Community members have concerns about the lack of information from water agencies and local authorities for some issues, such as water quality, home pipe and fixture safety, and school water fixture problems, among others.

Lack of funding for projects and operation and maintenance costs.

- Many communities lack funding to pay the growing costs of large-scale projects, including extending delivery systems, creating systemwide drought resilience, and enabling stormwater capture.

Lack of access to safe drinking water.

- Elected officials and water agencies agree that the watershed's drinking water quality is acceptable for all communities, but many participants expressed concern over particular "hot spots" of contamination or compromised quality that disproportionately burden people of color, immigrants, and those in economically overburdened and "downstream" areas.

Need for updates to aging infrastructure.

- Small community water providers cannot fully address concerns posed by aging infrastructure, especially on private property.

Affordability challenges are experienced in communities around the funding area.

- Mutual and small community water companies bear the cost burdens created by regulatory compliance, labor costs, buying and selling imported water, and their commitment to provide affordable water to small, overtaxed communities that are struggling with rate increases.

- There is concern that people buying bottled drinking water are compounding their economic burdens; however, some feel that buying drinking water is necessary for their health, based on perceptions of poor water quality.

Unhoused in the watershed.

- People experiencing homelessness have identified difficulties with accessing water for drinking and sanitation.

- Homeless encampments can have impacts on water quality degradation, riparian/aquatic habitat, hydromodification, and flood risk of the Santa Ana River.

Tribal Engagement

California Indian Tribes in the Santa Ana Funding Area.

- Approximately 36,700 individuals in the watershed identify as Native American[2].
- There are numerous Tribal members in the Santa Ana watershed, including the Pechanga Band of Mission Indians, San Manuel Band of Mission Indians, Morongo Band of Mission Indians, Soboba Band of Luiseño Indians, Torres-Martinez Desert Cahuilla Indian, Chumash, Cahuilla, Payuchi, Chemehuevi, Serrano, Apachean, Taino, Huichol, Penobscot, Lakota, Tongva, Luiseño, and Acjachemen (aka Juaneño) peoples. Approach to Tribal engagement.
- Engagement activities included informational and presentation events, two formal listening sessions, two field-testing sessions, and two formal follow-up feedback-response sessions.
- A Tribal Water Summit was coordinated by Tribal representatives in conjunction with the State of California and other stakeholder groups to prepare deeper inroads into the experiential and sociopolitical understandings needed to operate in the region.

2 *Tribal population for the Santa Ana River Watershed was estimated using 2019 census block groups from the American Community Survey (ACS) 2012–2016 data.*

Challenges encountered through the Tribal engagement process.

- Native peoples identified ongoing exclusion from water access and delivery planning as a barrier to participation.
- Communication with governmental entities is inconsistent; therefore, Native/Tribal concerns and beliefs are often marginalized.
- There is a need for greater understanding of water governance and agency roles to build coalitions.
- Trends in water management have created barriers for Tribal members to connect to the land and water spirits (gates, reservoirs, etc.).
- Some Tribal communities feel they need to formally claim their water rights to gain recognition in water governance and management, which often results in conflicts with water agency missions and objectives.

Opportunities identified through the Tribal engagement process.

- Listening sessions presented opportunities to learn from Tribal communities regarding their unique cultural, historical, and present perspectives on water-related themes and issues.
- The inclusion of Tribal communities will enhance water management because of their histories and spiritual connections to water, which recognizes the responsibility to balance human demands while simultaneously supporting ecosystems.

Program Successes Comments Received from Funding Area Representatives

- Production of an interdisciplinary ethnographic strengths and needs assessment for the watershed led to engagement and insights beyond what water agencies normally would receive from community members.
- Partners engaged participants in all four counties of the Santa Ana River Watershed.

To learn more about the Santa Ana Funding Area Disadvantaged Community Involvement Program, contact Rick Whetsel at rwhetsel@sawpa.org.

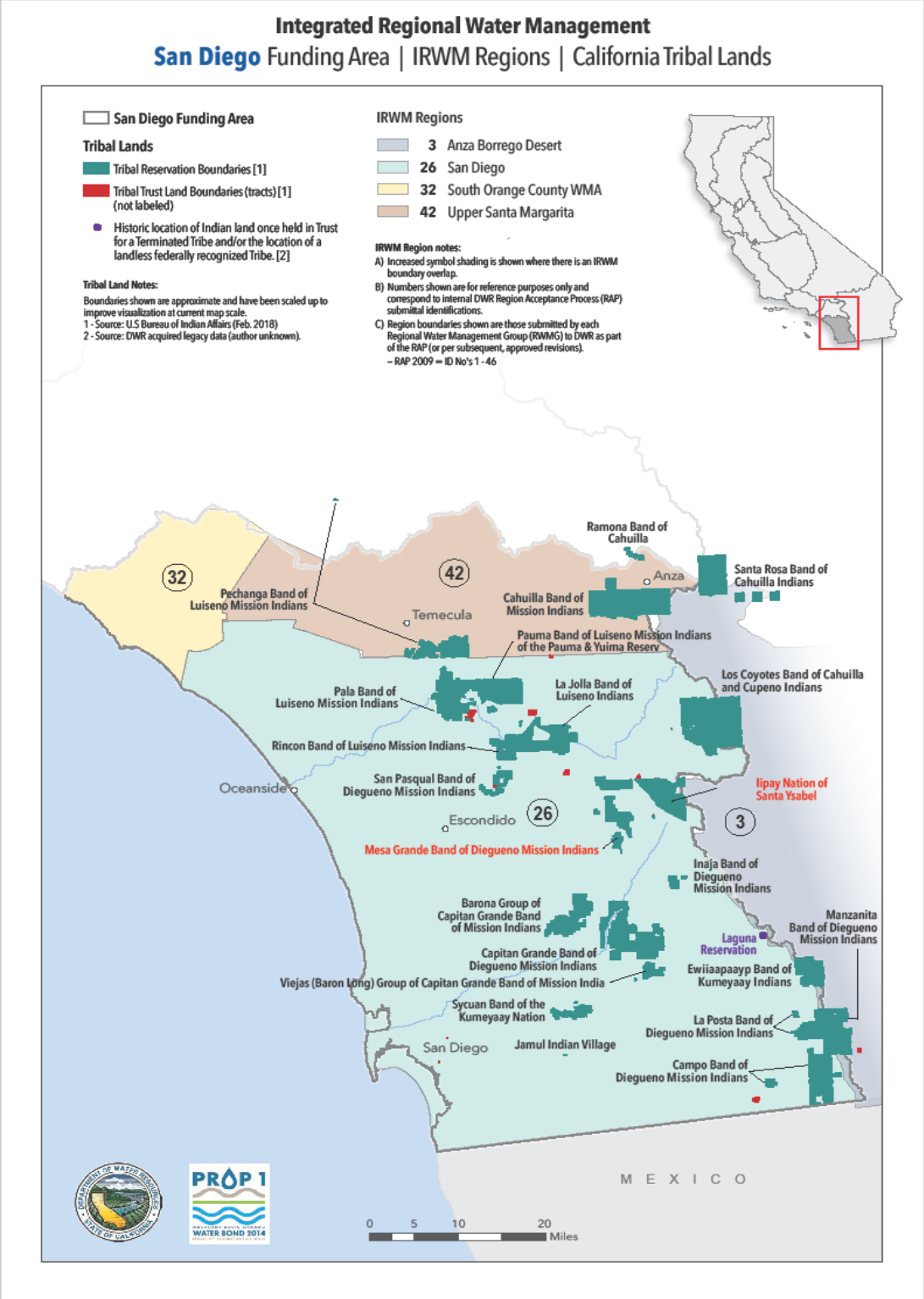


San Diego Funding Area

IRWM Regions:

South Orange County WMA, Upper Santa Margarita, San Diego

Figure 23. San Diego Funding Area Map



Physical Characteristics

The San Diego Funding Area is located in the southwest corner of the state and extends from the Pacific Ocean in the west to the Peninsular Ranges in the east. The area's northern boundary begins in the San Joaquin Hills and Santa Ana Mountains and extends to just south of the San Jacinto Mountains; the southern boundary runs along the California-Mexico border. The area includes 11 watersheds and 25 separate groundwater basins. The area's diverse habitats range from coastal to mountainous. Water resources in the region come from local sources, groundwater, recycled water, and imported water from the Colorado River Aqueduct and the SWP. The funding area is beginning to experience the effects of climate change, and increased temperatures and changes in precipitation patterns will likely lead to uncertainty over the availability of future imported water supplies, higher water demand for agriculture, longer periods of drought, and more high-intensity storms. Inundation of coastal wastewater and stormwater infrastructure is possible as a result of sea level rise. Higher temperatures will impact water quality by increasing the frequency and intensity of harmful algal blooms and other water-borne agents in freshwater streams and estuaries. Unpredictable weather patterns are expected to cause the loss of critical habitat around streams and reservoirs and reduce populations of native plants and animals.

Figure 24. San Diego Needs Assessment results workshop



Community Characteristics

San Diego Region

Most of the 3.2 million people in the region inhabit the urbanized coastal areas. Six of San Diego County's 18 incorporated cities and 15 of its 30 unincorporated Community Planning Areas are considered disadvantaged or contain disadvantaged communities. The majority of these communities are considered urban, meaning they lie within water and wastewater agency service areas. Twenty-seven percent of people living in the region reside in disadvantaged, severely disadvantaged, economically distressed, and environmental justice communities. San Diego County includes urban disadvantaged communities that generally receive water service from their respective municipal water supplies, the largest being the City of San Diego. Also present in the region are rural disadvantaged communities that rely on groundwater as their sole supply of potable water. Rural residents that live outside the San Diego County Water Authority service area are entirely dependent on groundwater resources and rely on individual groundwater wells or community water wells. Water quality issues associated with imported water include high salinity levels, uranium, and perchlorate in Colorado River Aqueduct supplies and high levels of bromide and total organic carbon in SWP supplies.

Upper Santa Margarita Region

Approximately 2 percent of people in the region reside in disadvantaged, severely disadvantaged, economically distressed, and environmental justice communities. All disadvantaged communities in the region are considered rural, with unique water supply and quality needs. Over 50 percent of the water demands in the region are met by treated and untreated surface water imported from the Metropolitan Water District of Southern California. Water quality issues include high nitrate levels and naturally occurring constituents that exceed water quality regulatory limits.

South Orange County Region

All disadvantaged communities in the region are considered urban and are located within defined water agency service areas, providing safe drinking water through service connections. Within the region, 6 percent of the population resides in disadvantaged, severely disadvantaged, economically distressed, and environmental justice communities. These communities are

found in small pockets within the larger metropolitan areas of the region. South Orange County obtains 97 percent of its water from imported sources; however, these are becoming increasingly unreliable with environmental constraints such as drought and Sacramento-San Joaquin Delta pumping restrictions.

Opportunities Realized from Funding Area-wide Needs Assessments

Increase representation of disadvantaged communities and California Indian Tribes in water management planning.

- Continue to conduct outreach to disadvantaged community and Tribal groups, encouraging and expanding their continued engagement in IRWM stakeholder groups.
- Promote fiscal partnerships to support costs not covered by grant funding.
- Leverage the updated contact list that resulted from the needs assessment process.
- Explore alternative outreach methods to reach communities with limited access to web-based resources.
- Utilize partnerships, such as the one with the Rural Community Assistance Corporation, to increase engagement with stakeholders not previously involved with IRWM.
- Continue to actively seek disadvantaged community representation on advisory committees of each IRWM program's stakeholder group and serve as a forum for communication within the funding area.

Provide and/or expand technical assistance to increase capacity.

- Continue to provide technical support training for IRWM grant processes.
- Advertise technical training and support provided by nongovernmental organization partners.

Partner with organizations and agencies to expand the benefits of the program.

- Build partnerships with organizations, such as the Water Boards, to leverage existing relationships and resources.
- Communicate pressing needs to DWR as priorities for communities.

Utilize sustainable development methods and small-scale actions for local solutions.

- Implement low-impact development in planned areas to meet municipal separate storm sewer system (MS4) permit requirements.
- Diversify water supplies in rural areas by including rain barrels, gray water, and small-scale recycled water.

Continue support for projects focused on disadvantaged communities.

- Encourage future IRWM project applications that follow up on ideas from community meetings.
- Use targeted outreach to inform communities of funding opportunities when available.

Challenges Encountered or Identified Through the Needs Assessment Process

Insufficient quantity of water for future populations.

- In some rural areas, there is uncertainty about the ability of some communities to ensure adequate water supplies for growing populations, especially with effects from climate change and drought.

Concern about water supply, safety, and storage.

- There is a lack of access to safe groundwater supplies in some rural areas; specifically, areas with water contaminated by uranium, nitrates, and sulfur. Leaking septic systems are also a cause of contamination.

- Poor quality source water increases the expense and difficulty of meeting water quality standards.
- Water quality standards are becoming increasingly stringent, and local agencies are challenged to meet regulatory water quality standards in a cost-effective manner.

Lack of infrastructure and aging infrastructure.

- A lack of storm drains likely causes flooding in many communities.
- Aging water supply and wastewater infrastructure causes street flooding, contamination issues, and flash flooding. There is a need for both capital infrastructure and improved operations and maintenance.
- Lack of adequate wastewater or septic infrastructure and concern for failing septic systems.

Affordability challenges experienced in communities around the funding area.

- The cost of water is rising, conflicting with the goal of providing affordable water.
- Reliance on bottled water is expensive and not sufficient during drought.
- Need for succession planning in water management.
- The upcoming “silver wave” of retiring drinking water and wastewater system operators will likely result in significant knowledge gaps pertaining to those systems.

Difficulty facilitating diverse and comprehensive community participation and engagement.

- In-person engagement requires funding and staffing investments that surpass the capacity of many communities.
- The cost of, and capacity for, reaching out to communities across the region is a barrier for IRWM staff and representatives.

Minimal access to technology.

- Many communities do not use or have limited access to modern technology, so webinars and online information do not reach these audiences.
- Technical support is lacking in rural communities to help them apply for funding needed for identified community projects.
- Many rural communities do not know exactly where their pipelines are and do not have access to final as-built drawings or GIS data for their systems.

Limited capacity to pursue project funding and maintain cash flow.

- Limited capacity to remain informed about grant opportunities and to apply for or implement grants creates barriers to potential project funding.
- Limited time to participate in IRWM activities on a voluntary basis also creates barriers.

Figure 25. South Orange County meeting.



Tribal Engagement

California Indian Tribes in the San Diego Funding Area.

- There are at least 21 California Indian Tribes present in the San Diego Funding Area, with the majority in the San Diego IRWM region.

Approach to Tribal engagement.

- The funding area included California Indian Tribes in its general outreach efforts as well as Tribal-specific outreach measures. Several of the funding area partner organizations had preexisting relationships with Tribal communities.

- The needs assessment questionnaire included six Tribal responses. In addition to the inclusion of California Indian Tribes in general community meetings, one of the meetings was held at an assembly of the Native American Water Masters Association at the Pechanga Government Center. Eighteen representatives from 10 California Indian Tribes and Tribal organizations attended.

Challenges identified through the Tribal engagement process.

- Poor drainage, urban planning, and management of nearby highway runoff can cause flooding on Tribal reservations.

- Wastewater systems may not be recognized by the State, which can result in a lack of quality operators for California Indian Tribes. Other wastewater challenges also exist, such as locating viable land for septic systems.

- Changing water management policies create concern for Tribal groundwater rights.

- Standard contracting language and California Environmental Quality Act (CEQA) requirements continue to represent a barrier to California Indian Tribes as they can infringe upon Tribal sovereignty. The CEQA requirement can impede Tribal participation.

Opportunities identified to improve Tribal engagement.

- A shared Tribal wastewater treatment plant was identified as a potential future project to include in an IRWM grant application.

- Non-potable water reuse can be explored at a small scale as a method of transitioning from septic to sewer.
- Community workshops in targeted areas have proven to be the best strategy for discussing and identifying water needs.
- Look to areas where Tribal involvement has been successful, such as the "Groundwater Planning for disadvantaged communities and California Indian Tribes in the Anza Valley Groundwater Basin" project, which included the Ramona Band of Cahuilla Indians as the project sponsor, or the inclusion of Tribal seats on the San Diego IRWM Regional Advisory Committee.

Program Successes Comments Received from Funding Area Representatives

- Five of the nine projects awarded under the DACTI Program were from new applicants not previously involved in an IRWM grant program.
- One of these projects was awarded Proposition 1 Implementation funding to carry out construction.
- One California Indian Tribe received funding and acted as the project sponsor through the DACTI Program. It was the first California Indian Tribe in the funding area to receive direct IRWM project funding.
- Forty-two percent of disadvantaged community organizations that were contacted chose to participate through the questionnaire or community meetings.
- The funding area's partnership with Rural Community Assistance Corporation increased rural participation in the needs assessment, reflecting the success of targeted outreach efforts.
- Partnering with nongovernmental organizations that already have established relationships with communities proved to be an effective way to engage with those communities.
- In response to feedback from one of the community workshops, a staff member from Riverside County is now a participating member of the Anza Groundwater Association.

- Potential projects for future IRWM grant applications were identified through the process, including a fire suppression water pipeline in the Anza community in the Upper Santa Margarita IRWM Region, and a shared Tribal wastewater treatment plant in the San Diego IRWM Region.

To learn more about the San Diego Funding Area Disadvantaged Community Involvement Program, contact Elizabeth Lovsted at ELovsted@sdcwa.org, the successor to Mark Stadler.

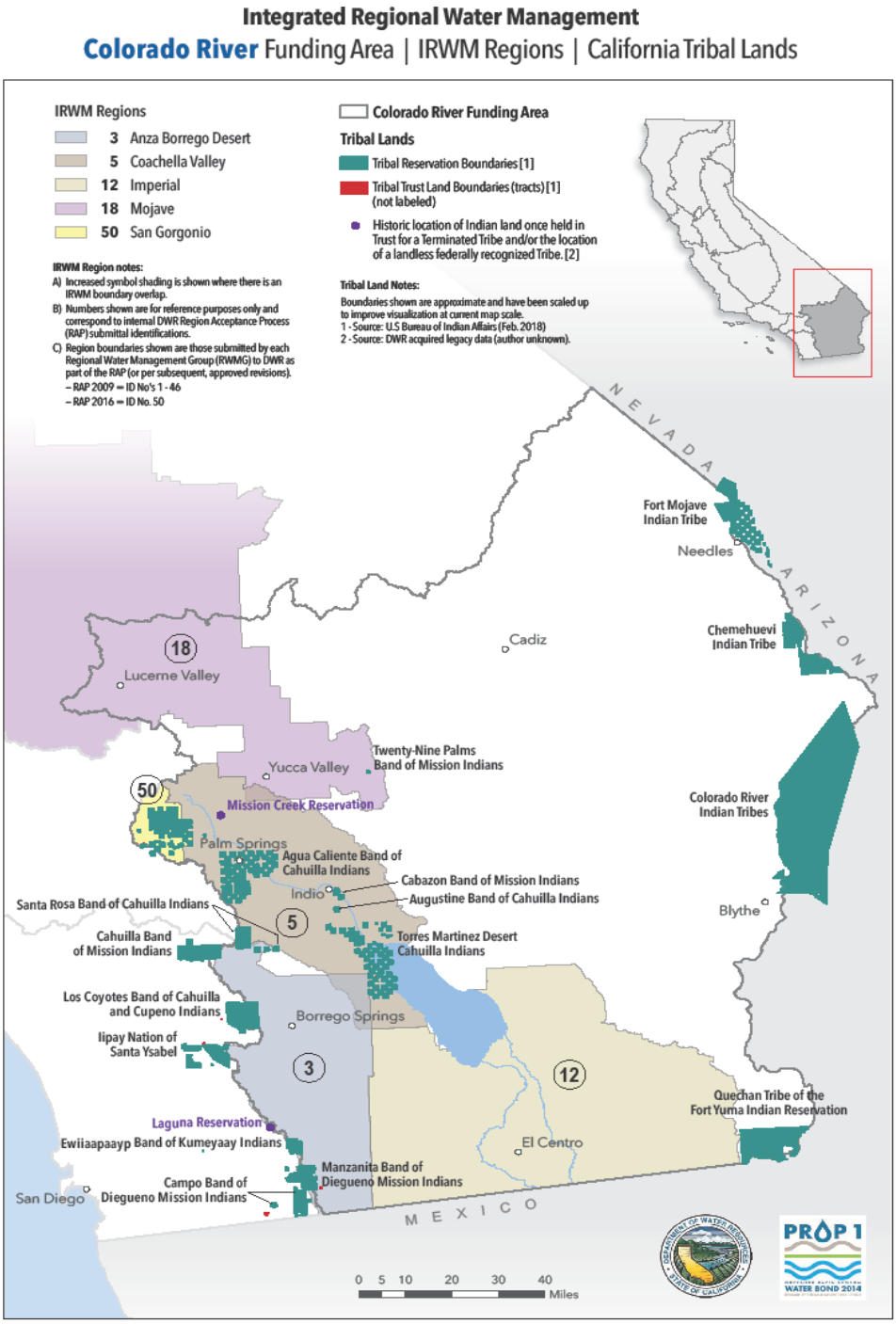


Colorado River Funding Area

IRWM Regions:

Mojave, Coachella Valley, Anza Borrego Desert,
Imperial, San Gorgonio

Figure 26. Colorado River Funding Area Map



Physical Characteristics

The Colorado River Funding Area covers approximately 20,000 square miles and encompasses desert, high desert, and mountainous terrain. The funding

area contains two important water bodies: the Colorado River and the Salton Sea. The Colorado River is one of the area's main water sources. The Salton Sea is saline and is fed in part by irrigation discharge and wastewater; therefore, it is not a suitable water source for irrigation or potable uses. Groundwater basins are another water source in the area, but water quality in many basins is poor because of contamination by naturally occurring toxins or human activities, such as agricultural operations. The funding area is generally very dry, but torrential rain events do occur. These events pose significant risks to disadvantaged communities because these areas tend to have inadequate flood control facilities. Climate change impacts include a reduction in imported water reliability, changes in runoff patterns affecting the region's ability to access and store water in local groundwater basins, and an increase in damaging flooding.

Community Characteristics

The Colorado River Funding Area contains five IRWM regions, but a large portion of the funding area is not affiliated with any existing IRWM region. This area is referred to as the Eastern Counties, and 95 percent of the area is characterized as a disadvantaged community by population. Approximately 780,000 people live in the funding area, with 92 percent of residents in disadvantaged communities and 44 percent in economically distressed areas. The funding area is diverse, with communities made up of farm workers, urban and rural residents, and low-income seniors. Communities within the funding area tend to be geographically isolated from one another, making outreach difficult and contributing to the high cost of projects. Communities rely on water imported from the Colorado River and the SWP, in addition to groundwater and some local surface water and recycled water. Some communities rely solely on groundwater as their water source, so ensuring that groundwater remains safe and reliable is a priority. Water quality issues are found in some parts of the funding area, including arsenic, hexavalent chromium (chromium-6), nitrates, total dissolved solids, radionuclides, and bacteria.

Opportunities Realized from Funding Area-wide Needs Assessments

Continue to establish and maintain relationships with disadvantaged communities and California Indian Tribes.

- Ensure inclusion of disadvantaged communities and California Indian Tribes in future planning efforts, especially for areas that are not included in an active IRWM region.

Expand IRWM region boundaries or create additional IRWM regions.

- Communities in the eastern counties area have requested assistance, but there is currently no framework in place to provide assistance because this area is not within an existing IRWM region.

Expand funding opportunities.

- Lift grant funding caps for planning projects.
- Ensure groundwater funding support is equally accessible to all medium- and high-priority basins, regardless of plan status.

Streamline advanced payment.

- Economically disadvantaged areas bear the brunt of high project costs while waiting for reimbursement. Streamlining the process to receive advanced payment would lift some of the burden off the communities.

Provide technical assistance.

- Technical assistance could be provided to help small, underrepresented groups participate in the IRWM processes and pursue other funding opportunities.

Create incentives to decrease demand and promote conservation of water.

- Although water supplies are currently adequate, continued development, population growth, and climate change may stress the water supply.

- To decrease demand, incentivize the use of non-potable water for non-drinking-water uses, such as landscape irrigation.
- Expand access to residential water conservation products.

Challenges Encountered or Identified Through the Needs Assessment Process

Lack of redundancy or reliability of the water supply.

- Desert basin aquifers are easily overdrafted, and monitoring has shown that groundwater levels in some basins are decreasing.
- Agricultural water demand is high and demand for nonagricultural water use is increasing. Some communities within the funding area are growing, leading to increased municipal water demand, as well as increased geothermal energy production and recreation.
- Many communities rely on a single water source, making them vulnerable to shortages and water quality issues.
- Wells are nonoperational when power is shut off. Power shutoffs during high wind events are becoming more common as utilities seek to mitigate wildfire risk.
- Increasing salinity is a continuous challenge and poses a long-term threat to water supply.

Figure 27. Active Discussion at Round Table Meeting



Lack of access to safe drinking water.

- Many disadvantaged communities lack basic infrastructure and access to tap water. Some communities purchase drinking water or use non-potable water for everyday use.
- Some residents are concerned that poor quality water is being used to recharge groundwater basins.

Need for updates to aging infrastructure.

- The water conveyance systems in many communities are aging — some are over 100 years old. Several decaying cast iron and concrete lines are breaking and distributing brown water through residential taps.
- Small communities do not have enough revenue to pay for necessary water system upgrades without significant rate increases.

Risk of damaging floods.

- Some communities are not protected by regional flood control facilities, which are unaffordable for low-density and economically disadvantaged communities.
- Some communities lack proper stormwater infrastructure, increasing the risk of flooding.

Reliance on septic systems.

- Many septic systems are failing and contributing to groundwater contamination. Residents would like to connect properties to municipal sewer systems, but this is expensive.
- Some communities rely on open lagoons for wastewater disposal, which is a health hazard.

Hiring and retaining staff is difficult.

- Remote locations, low salaries, and a lack of training opportunities make it difficult to hire and retain licensed water professionals.

Tribal Engagement

California Indian Tribes in the Colorado River Funding Area.

- Eighteen California Indian Tribes are located in the funding area, five of which are located outside of established IRWM regions.

Approach to Tribal engagement.

- Outreach is focused on California Indian Tribes located in non-IRWM areas, also known as the “Eastern Counties.”
- IRWM regions implemented existing Tribal engagement programs.
- A water needs questionnaire was distributed to the Eastern Counties. Responses were collected from a number of stakeholders, including California Indian Tribes, and helped to identify challenges and opportunities.

Challenges identified through the Tribal engagement process.

- Tribal members living on “allottee” land often have serious drinking water quality and access issues and face severe water management challenges.
- One California Indian Tribe expressed concern about the salinity of imported water; in particular, there is concern about the salinity of water that is recharging groundwater aquifers.
- Tribal communities lack connections to water and sewer services; expansion of existing water systems is needed.

Opportunities identified through the Tribal engagement process.

- Establish and maintain relationships with California Indian Tribes that were developed through the needs assessment process.
- Preservation of native plant species and habitats is vital to Tribal sovereignty and cultural practices.

Figure 28. Presentation at Round Table Meeting



Program Successes Comments Received from Funding Area Representatives

- Outreach for the funding area's needs assessment contributed to positive changes in relationships between IRWM regions and disadvantaged communities.
- Community meetings and the water needs questionnaires identified new potential projects for future IRWM grant applications, including water and wastewater consolidation, updated water and wastewater master plans, and maintenance for aging infrastructure.
- Ten disadvantaged community projects have been funded through the DACTI Program, including but not limited to:
- Water pipeline replacement and booster stations.
- Sewer connections/extensions.
- Water quality (uranium, salt and nutrients, chromium).
- Master plan, engineering report, and environmental compliance document development.

To learn more about the Colorado River Funding Area Disadvantaged Community Involvement Program, contact Zoe Rodriguez Del Rey at ZRodriguezdelRey@cvwd.org.

Conclusion

The Disadvantaged Community and Tribal Involvement (DACTI) Program represents a significant step forward in advancing more inclusive and equitable water management across California. By investing in outreach, engagement, and capacity building, the State has enabled underrepresented communities and California Indian Tribes to participate more meaningfully in Integrated Regional Water Management (IRWM) processes. These efforts have strengthened regional collaboration, elevated community voices, and contributed to the development of more responsive and locally informed water management solutions.

At the same time, the findings of this report make clear that meaningful engagement is not a one-time investment—it requires sustained commitment. Building trust, strengthening capacity, and developing implementable projects take time, resources, and intentional program design. While the DACTI Program has laid a strong foundation, many of the structural, financial, and institutional barriers identified in this report remain. Without continued support, there is a real risk that the progress made—particularly in establishing relationships with disadvantaged communities and Tribes—will stall or be lost.

This report highlights a consistent message across all funding areas: equitable water management cannot be achieved without addressing disparities in access to funding, technical resources, and decision-making opportunities. Future efforts must move beyond engagement alone and focus on ensuring that underrepresented communities and California Indian Tribes are positioned as long-term partners and leaders in planning and implementation. This includes rethinking funding models, improving program accessibility and coordination, modernizing data tools, and embedding flexibility to address regional and cultural differences.

Looking ahead, California has an opportunity to build on the lessons of the DACTI Program to create more durable, inclusive, and effective water management systems. Continued investment in engagement, planning, and project development—alongside policy and legislative improvements—will be critical to ensuring that all Californians benefit from safe, reliable, and sustainable water resources.

Ultimately, stronger, more inclusive communities lead to more resilient water systems. The work advanced through the DACTI Program

demonstrates that when underrepresented communities and Tribes are meaningfully engaged, the result is not only more equitable outcomes, but better water management for the State as a whole.

Resources

Funding Area Needs Assessment documentation:

- North Coast — https://northcoastresourcepartnership.org/site/assets/uploads/2020/10/NCRP_DACTI-Needs_Sept20_v4.pdf
- Sacramento River — https://srfadacip.com/docs/
- Mountain Counties — https://sierrainstitute.us/program/dactip/
- San Joaquin River — https://www.eccc-irwm.org/needs-assessment
- Tulare Kern — https://tularelakebasin.com/alliance/disadvantaged-communities-involvement/needs-assessment/
- Lahontan — Contact region for more information for a copy of the report via Dustin Hardwick dhardwick@calruralwater.org or Luis Carmona lcarmona@calruralwater.org
- Santa Ana — https://sawpa.gov/owow/dci-program/
- San Diego — https://www.sdirwmp.org/pdf/SDFA_Final_WaterNeedsAssessment.pdf
- Colorado River — https://www.cvrwmg.org/resources/library/
- Central Coast — https://drive.google.com/file/d/1ZPSdMkgRTOWQNtbstKCKWuGUWb7yxmDH/view
- SF Bay Area — https://www.sfestuary.org/dactip-regional-needs-assessment/ (September 2022)
- Los Angeles —Please see Executive Summary and existing Resources/Needs Assessment Dashboards at: https://watertalksca.org/

Additional Resources:

- DAC Outreach — Coachella Valley Water Management Group (cvrwmg.org)

- Disadvantaged Communities Infrastructure Task Force | Coachella Valley Water District — Official Website (cvwd.org)

Definitions (Selected From IRWM Grant Program Guidelines)

Advanced Payment — is available for certain projects meeting the criteria specified in Water Code §10551. Advanced payment is only available for eligible reimbursable costs, see Reimbursable Costs definition.

Applicant — the entity that is formally submitting a grant application. This is the same entity that would enter into an agreement with the State should the grant application be funded. The grant applicant must be a public agency, nonprofit organization, public utility, federally recognized Indian Tribe, state Indian Tribe listed on the Native American Heritage Commission's Tribal Consultation list, or a mutual water company (Water Code §79712 (a-b)).

Beneficial Uses — the uses of streams, lakes, rivers, and other water bodies to humans and other life. Beneficial uses are outlined in the respective Regional Water Quality Control Plan (Basin Plan). (See also Water Code § 13050(f).)

California Native American Tribe — all Indigenous Communities of California, which are on the contact list maintained by the Native American Heritage Commission, including those that are federally non-recognized and federally recognized, and those with allotment lands, regardless of whether they own those lands. Additionally, because some water bodies and Tribal boundaries cross State borders, this term may include Indigenous Communities in Oregon, Nevada, and Arizona that are impacted by water in California.

Disadvantaged Community — a community with an annual median household income that is less than 80 percent of the Statewide annual median household income (Water Code §79702(j) which refers to Water Code §79505.5).

Economically Distressed Area — 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 where the segment of the population is 20,000 persons or less, with an annual median household income that is less than 85 percent of the statewide median household income, and with one or

more of the following conditions as determined by the department: (1) financial hardship, (2) unemployment rate at least 2 percent higher than the statewide average, or (3) low population density. (Water Code §79702. (k)).

Environmental Justice — the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Government Code §65040.12 (e)).

Grantee — a grant recipient.

IRWM Plan — a comprehensive plan for a defined geographic area, the specific development, content, and adoption of which shall satisfy requirements developed pursuant to Water Code §10530 et seq. At a minimum, an Integrated Regional Water Management Plan describes the major water-related objectives and conflicts within a region, considers a broad variety of resource management strategies, identifies the appropriate mix of water demand and supply management alternatives, water quality protections, and environmental stewardship actions to provide long-term, reliable, and high-quality water supply and protect the environment, and identifies disadvantaged communities in the region and takes the water-related needs of those communities into consideration. (Water Code §10530 et seq., in particular §10534)

Local Cost Share — non-State fund portion of cost share made available by the applicant to assist in financing a project which can include in-kind-services directly related to the scope of work presented in the grant proposal. Generally, local cost share expenses must meet reimbursable cost requirements (defined below).

Local cost share may also include:

- expenses, including in-kind services, as long as the expenses are not otherwise funded by State funds.
- costs associated with development of Proposition 1, IRWM Implementation grant applications and participation in required pre-application workshops for projects that ultimately receive Proposition 1 IRWM Implementation grant funding.

  State Revolving Funds and American Recovery and Reinvestment Act funds are not considered State funds and may be used as local cost share.

Mutual Water Company — a private corporation or association organized for the purposes of delivering water to its stockholders and members at cost, including use of works for conserving, treating, and reclaiming water (Public Utilities Code § 2725-2729).

Nonprofit Organization — any nonprofit corporation qualified to do business in California and qualified under United States Code, title 26, §501(c)(3). (Water Code §79702 (p)) **Proposal** — the suite of projects that is submitted in an IRWM implementation grant application.

Proposition 1 — "Water Quality, Supply, and Infrastructure Improvement Act of 2014" passed by California voters on November 4, 2014, and as set forth in Division 26.7 of the Water Code.

Public Agency — any State agency or department, special district, joint powers authority, city, county, city and county, or other political subdivision of the State (Water Code §79702 (s)).

Public Utility — as defined in Public Utilities Code §216.

Regional Project or Program — projects or programs identified in an IRWM Plan that accomplish any of the following (Water Code §10537):

a) Reduce water demand through agricultural and urban water use efficiency.

b) Increase water supplies for any beneficial use through the use of any of the following or other means:

    1. Groundwater storage and conjunctive water management
    2. Desalination
    3. Precipitation enhancement
    4. Water recycling
    5. Regional and local surface storage
    6. Water-use efficiency
    7. Stormwater management

c) Improve operational efficiency and water supply reliability, including conveyance facilities, system reoperation, and water transfers.

d) Improve water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff.

e) Improve resource stewardship, including agricultural lands stewardship, ecosystem restoration, flood plain management, recharge area protection, urban land use management, groundwater management, water-dependent recreation, fishery restoration, including fish passage improvement, and watershed management.

f) Improve flood management through structural and nonstructural means, or by any other means.

Regional Water Management Group — or RWMG means a group in which three or more local agencies, at least two of which have a statutory authority over water supply or water management, as well as those persons who may be necessary for the development and implementation of an IRWM Plan that meets the requirements in Water Code §10540 and §10541.

Reimbursable Costs — costs that may be repaid by State grant. Reimbursable costs may include the reasonable costs of engineering, design, land and easement, legal fees, preparation of environmental documentation, environmental mitigation, and project implementation including directly related administrative costs.

Costs that are <u>not reimbursable</u> with grant funding include, but are not limited to:

a) Costs for preparing and filing a grant application

b) Operation and maintenance costs, including post construction project performance and monitoring costs

c) Purchase of equipment not an integral part of the project

d) Establishing a reserve fund

e) Purchase of water supplies with the exception of Water Code §79709 (c)

f) Replacement of existing funding sources for ongoing programs

g) Support of existing punitive regulatory agency requirements and/or mandates in response to negligent behavior

h) Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of the project, as set forth and detailed by engineering and feasibility studies or acquisition of land by eminent domain

i) Indirect costs, except those that are directly assignable to the grant (documented and proportionately assessed). Examples of indirect costs include, but are not limited to: central service costs; general administration of the Grantee or Local Project Sponsors (LPS); non-project-specific accounting and personnel services performed within the Grantee or LPS' organizations; depreciation or use allowances on buildings and equipment; the costs of operating and maintaining non-project-specific facilities; tuition and conference fees; and, generic overhead or markup.

j) Mitigation for environmental impacts not resulting from implementation of the project funded by this program

Small Disadvantaged Community — for the purposes of Water Code §10545, a small disadvantaged community shall mean a Disadvantaged Community (Water Code 79702(j)) that also has a yearlong population of no more than 10,000 persons.

Urban Water Supplier — supplier, either publicly or privately owned, that provides water for municipal purposes, either directly or indirectly, to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually (Water Code §10617).

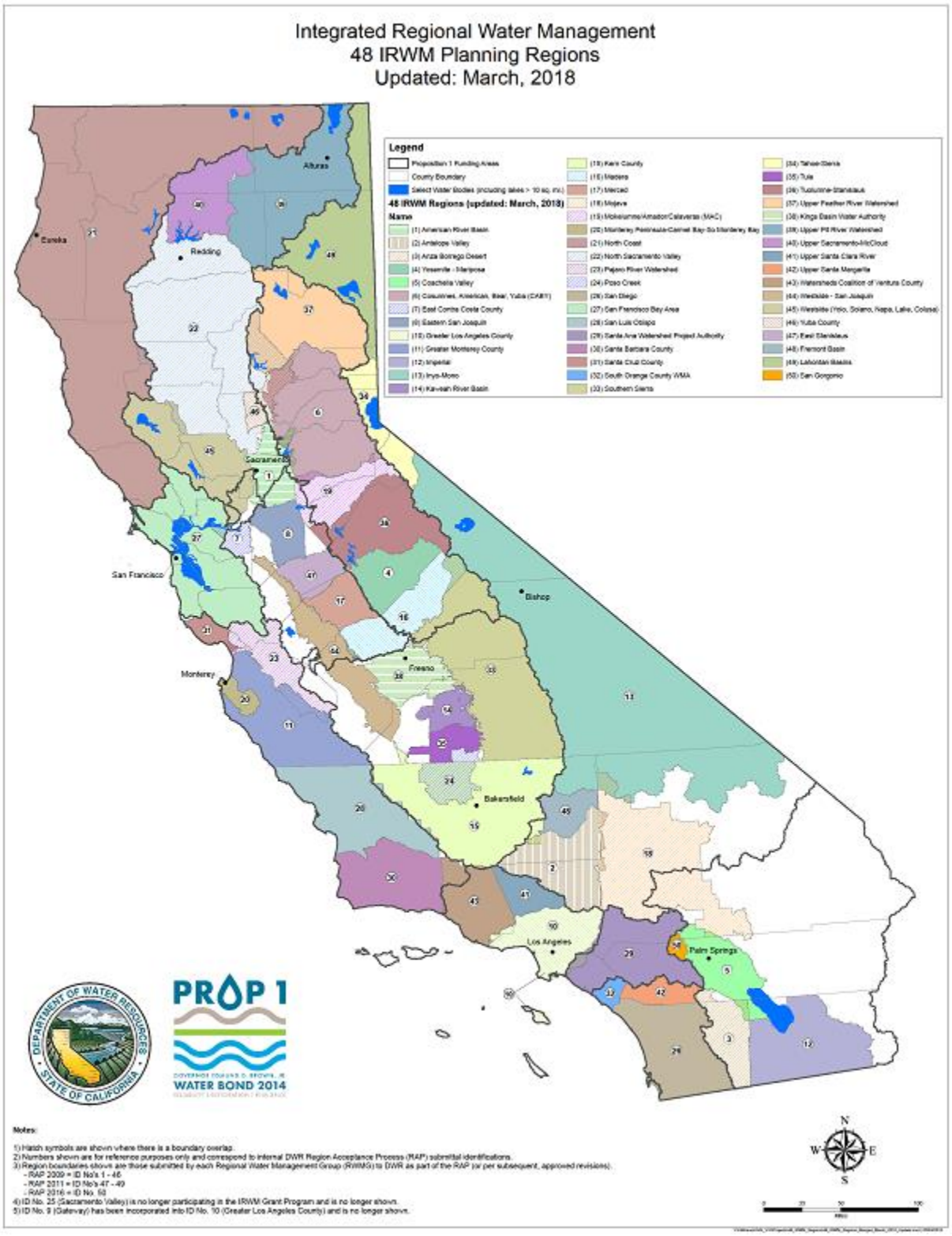
Appendix A — Timeline of Key Legislative and Funding Actions



Appendix B — Timeline of Key Outreach Efforts/Events from 2002–2024



Appendix C — Map of 48 IRWM Planning Regions



Appendix D – State Investments in IRWM to Address the Needs of Underrepresented Communities and California Indian Tribes

The dedicated resources in Proposition 1 for creation of the DACTI Program by DWR was the culmination of 12 years of learning, working, and advocating across California. Starting with the passage of the 2002 Water Security, Clean Drinking Water, Coastal and Beach Protection Act (Proposition 50), California voters and the Legislature directed expenditures to prioritize drinking water projects through application assistance, cost share waivers, and outreach to members of disadvantaged communities. In 2006, when the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act (Proposition 84) passed, $1 billion was allocated to IRWM to address "critical water supply or water quality needs for disadvantaged communities…"

As the State's grant programs evolved to incorporate the principles from these two early bond measures, advocates for environmental justice reported that the programs were not reaching and serving the needs of all communities, most notably, disadvantaged (low income) communities. In response, DWR partnered with regional water leaders in 2011 to provide Proposition 84 funding for seven pilot projects across the state that sought to develop best practices for engaging members of disadvantaged communities in IRWM efforts. An important conclusion was that any future legislation funding set aside for implementation of projects benefiting these communities should also be paired with a set-aside in funding for planning, outreach, and engagement activities. Involvement of members of disadvantaged communities during planning and decision-making is essential to inform or direct investments in projects on the ground. In December of 2014, DWR convened a three-day DAC workshop that included representatives of the DWR, State Water Resources Control Board and nongovernmental organizations. Topics discussed at the workshop included barriers to change and the recommendations from the workshop covered the following topics: Disadvantaged Community Identification, Coordination, Agency Alignment, Capacity Building and Technical Assistance, Education, Disproportionate Impacts, Governance and Representation, and Funding. These workshops paved the way for the minimum of $52 million set aside in Proposition 1 for the DWR DACTI Program.

Proposition 50 clearly established a process for IRWM planning that “address[es] the major water related objectives and conflicts of the watersheds in the region covered by the plan,” and Proposition 84 described the minimum standard for establishing integrated regional water management groups. Proposition 1 added that the planning requires “a public process that provides outreach and an opportunity to participate in plan development...”. In each successive decision by the California Legislature and voters, the IRWM Program has further refined the idea that integrated water resources management planning should include contributions from all potentially impacted communities. In the 20 years since Proposition 50 first outlined the State's role in providing technical and financial assistance to low-income communities, the DACTI Program has highlighted the critical importance of State-level support in fostering inclusivity.

Appendix E – Findings and Recommendations from 2018, 2020, and 2024 DACTI Summits

The DACTI Program, to date, has provided three opportunities for the State to engage with regional partners in summits. The DACTI Summits invited State staff, IRWM practitioners, Tribal leaders and members, scholars, and community-engaged partners to gather and collaborate over shared goals.

The first summit, "DACTI Lessons Learned," was hosted by the Sierra Water Working Group in November of 2018 (2018 Summit Summary). The purpose of this summit was to share DACTI Program strategies, approaches, and experiences; to showcase testimonials and success stories; and to demonstrate the importance of comprehensive and collaborative approaches. The second summit, "Ensuring Equitable Involvement in Regional Water Planning," conducted during the COVID-19 pandemic, convened virtually during the fall of 2020 with participants joining from across the state for presentations and panel discussions (2020 Summit Proceedings). The purpose of this summit was for attendees to teach and learn strategies for engaging California Indian Tribes and marginalized communities in regional water management. The third summit, "Summit for Equity and Resilience in Water" a hybrid event, organized by the WaterTalks program, took place in March 2024 at the Los Angeles County Public Works Headquarters in Alhambra, California (2024 Summit Proceedings). This final summit aimed to facilitate the sharing of experiences and outcomes related to regional programs started through the DACTI grant program.

Below are key takeaways and recommendations that emerged from these summits:

- Engagement with California Indian Tribes as sovereign governments is paramount and must be considered a priority with IRWM.
- Capacity for effective engagement needs to be built at the individual, community, and State agency levels.
- The term "disadvantaged community," or DAC, carries a negative connotation for some and often does not capture all communities of need.

- The understanding that the most entrenched water challenges have to do with people and relationships and cannot be solved solely through engineering and technology.
- Public agencies pursuing “check-the-box engagement” exacerbates feelings of mistrust.
- Governments must address the immediate need of unhoused communities who lack access to sanitation, and better identify, document, and integrate unsheltered communities in watershed planning.
- Emphasizing a comprehensive approach is crucial for tackling inequities and bolstering resilience. By addressing social, economic, and institutional challenges through multi-benefit projects, we can effectively advance toward equitable and resilient solutions.