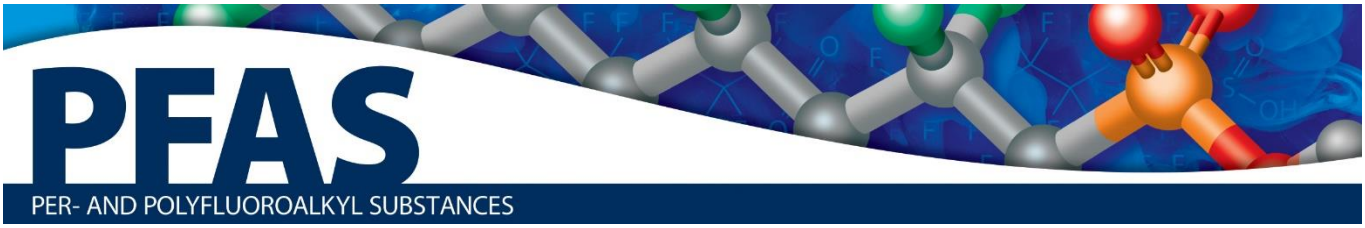


CHARACTERIZATION OF PER - AND POLYFLUOROALKYL SUBSTANCES IN CALIFORNIA'S DRINKING WATER AT DISADVANTAGED COMMUNITIES PER GENERAL ORDER NO. DW-2024-0002-DDW

COMMUNICATION PROJECT PLAN

MAY 2024

CALIFORNIA
Water Boards

1. PROJECT MANAGEMENT

1.1. TITLE AND APPROVAL SHEET

Project Title: Characterization of PFAS in California's Drinking Water Communication Project Plan at Disadvantaged and Disadvantaged Communities – General Order DW-2024-0002-DDW

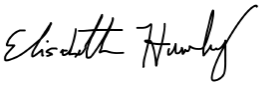
Lead Organization: California State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Primary Contact: Daniel Newton
Assistant Deputy Director
Division of Drinking Water
State Water Resources Control Board
Daniel.Newton@Waterboards.ca.gov

Effective Date: May 2024

Version: Version 1.0

1.2. APPROVAL SIGNATURES

NAME	ORGANIZATION	ROLE	SIGNATURE	DATE
DANIEL NEWTON	State Water Board	Project Director		
ANDREW HAMILTON	State Water Board	QA Officer		5/2/2024
WENDY LINCK	State Water Board	Project Manager		5/2/2024
ERICA KALVE	State Water Board	Project Coordinator & PFAS Technical Lead		4/30/2024
MOLLY WILLIAMS	State Water Board	Public Participation Coordinator		4/19/2024
BRIAN CURRIER	CSUS Office of Water Programs	Sampling Project Manager		4/4/2024
CAITLYN LEO	CSUS Office of Water Programs	Sampling Coordinator		4/12/2024
ELISABETH HAWLEY	Geosyntec Consultants	Sampling – Subcontractor Project Manager		4/3/2024

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1.4. COMMUNICATION PLAN REVISION HISTORY

Prepared By	Date of Revision	Description of Change
State Water Board	--	Version 1.0

1.5. PURPOSE AND ORGANIZATION OF DOCUMENT

The purpose of this Communication Plan (Plan) is to:

- Provide information through a centralized communication method,
- Standardize messaging for consistency,
- Identify project representatives,
- Identify engagement opportunities for Tribes and communities, and
- Provide public awareness and importance of this project.

The intended audience includes representatives of agencies directly involved with the project, public water agencies, and others who may not be directly involved but may be interested in the data and results from the project. This communication plan does not include internal contracting and logistical communications between the State Water Board and their project consultants and contractors.

The State Water Board adopted the Racial Equity Resolution (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2021/rs2021_0050.pdf) in November 2021. This resolution commits the State Water Resources Control Board (State Water Board) and it's nine Regional Water Quality Control Boards (collectively, known as the Water Boards) to be an anti-racist organization that incorporates a justice and equity lens in its work. As such, this communication plan incorporates Tribal outreach and engagement and a community impact analysis for this project. The analysis includes evaluating demographic considerations, environmental considerations, human health impacts, economic impacts, political considerations, and capacity building considerations. More information about this analysis is provided in the Communication and Engagement Plan section and Appendices A-C of this plan.

2. PROJECT OVERVIEW

The State Water Board is expanding the scope of a 2021 pilot study by sampling approximately 3,800 drinking water supply wells serving disadvantaged communities (DACs) and severely disadvantaged communities (SDACs)[1] throughout the state (Figure 1). These wells are distributed amongst approximately 1,200 water systems. On March 4, 2024, the State Water Board's Division of Drinking Water (DDW) issued General Order DW-2024-0002-DDW (2024 Order)[2] to those public water systems to comply with the testing requirements but at no cost to the water system. The Budget Act of 2022 appropriated funds to test for PFAS in these water systems. To complete this work, DDW contracted with the California State University, Sacramento's Office of Water Programs (OWP) and Babcock Laboratories, Inc. to collect and analyze samples for per- and polyfluoroalkyl substances (PFAS).

[1] See Appendix A for how DACs and SDACs are defined.
[2] The 2024 Order is available at the following website: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order/.

To characterize the PFAS content in these source wells, both targeted testing and non-targeted analyses (NTA) for PFAS will be performed, as well as a broad-spectrum test method[3] to evaluate the organofluorine content of the drinking water source water. This multifaceted monitoring approach will be used to elucidate patterns and trends in the PFAS content in the drinking water source water across the state and investigate whether specific PFAS content profiles are associated with regional areas, community types, or known PFAS-generating industries or activities.

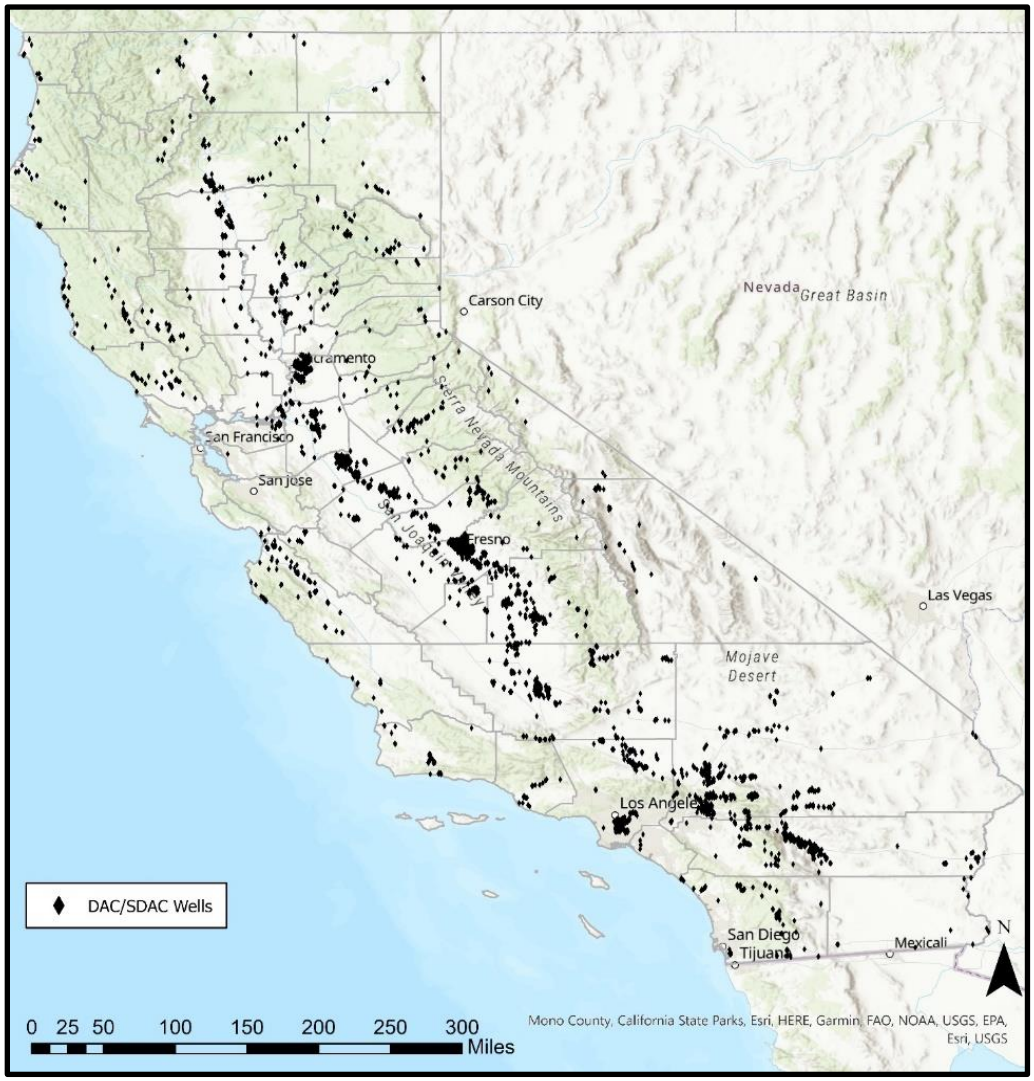


FIGURE 1. LOCATION MAP OF PUBLIC WATER SUPPLY WELLS SERVICING DAC/SDACS IN CALIFORNIA

Map Data Source: State Water Board, Division of Drinking Water, September 2023

[3] In accordance with expectations of AB 178, a method comparison study will be carried out prior to the initiation of sampling for this Project to determine the most effective broad-spectrum approach for estimating and quantifying the organofluorine content in these water samples.

The multifaceted monitoring approach will be used to investigate the removal of PFAS in commonly used public water system (PWS) treatment technologies in California. The investigation of pilot to full-scale drinking water treatment systems will be used to inform treatment optimization and removal of PFAS in water used for drinking in the state.

2.1 PROJECT PARTIES AND ROLES

The State Water Board is the lead agency for the characterization of PFAS in California's drinking water (Project). The primary roles involved with the implementation of this Plan are:

- Project Director - responsible for overseeing the project strategy, project budget, allocation of project funds, and the implementation of all project activities.
- Project Manager – supports the Project Director in the day-to-day Project management and coordination with consultants and contractors of the Project.
- Project Technical Lead and Project Coordinators - support the Project Director and Project Manager with development of the Project's experimental design and sampling strategy, as well as support in the data analysis and assessment.
- Project Data Manager - oversees the management of data files and will also help develop data visualization tools that will be used for public display of the data.
- Public Participation Project Coordinator – consults with the Project Director on public-decision making processes, communications, and interactions with stakeholders that could be affected by project actions and decisions.

2.1.2. STATE WATER BOARD OFFICE OF PUBLIC PARTICIPATION

Staff within the State Water Board's Office of Public Participation (OPP) ensures that the public participation policies and procedures are implemented and consistent with principles of the State Water Board. The State Water Board OPP also provides general guidance on communication throughout implementation of the Project, especially regarding tribal governments and environmental justice communities. OPP staff assist in the design and implementation of public involvement processes, including meeting facilitation, translation, and other services.

2.1.3. PROJECT CONSULTANTS AND CONTRACTORS

The State Water Boards is contracting with the Office of Water Programs at California State University, Sacramento (OWP) to provide sampling and education services. The OWP Sampling Coordinator is responsible for community education outreach including development of education materials that will support this Project and coordinating with and supporting their subcontractor. OWP is responsible for coordinating with the public water system on schedule, delivery of the sample results to the public water system, and delivery of education materials to communities. OWP's contractor is responsible for

the collection of well samples, shipment of samples to the contract laboratory, and coordination with the public water system's operator at the time of sampling.

2.1.4. TECHNICAL ADVISORS AND SUPPORT

2.1.4.1 U.S. Environmental Protection Agency

This Project is implemented in coordination with the US Environmental Protection Agency (EPA) Office of Research and Development (EPA ORD). EPA's ORD Technical Advisors provide expertise on the experimental design, data collection, data processing, and data interpretation for the State Water Board for the project. They also provided template documents that were adapted to the specifics of this Project that explain the highly technical nature of communicating to the public the analysis of and interpretations of NTA sample results. A liaison within EPA's Region 9 will also be available to serve as a point of contact to help coordinate meetings and for knowledge sharing between Project leads, technical advisors, and the public water systems.

2.1.4.2 Public Water Systems

A public water system is defined as a system that provides water for human consumption[4] to 15 or more connections or regularly serves 25 or more people daily for at least 60 days out of the year. This project will include coordination with 1,216 public water systems. The public water system is responsible for coordinating with OWP on the available timing for the sampling and providing a system operator to provide access to the well for sampling and other system operation information.

2.1.5. PERSONS RESPONSIBLE FOR UPDATING THE COMMUNICATION PROJECT PLAN

The project task coordinators, in coordination with the Project Manager, are responsible for maintaining and updating this Plan. All updates will be submitted to OPP for review and approval to ensure that project updates remain consistent with the State Water Board's Public Participation Policy Guidance.

2.1.6. PROJECT SCHEDULE

Samples collected from approximately 3,800 drinking water supply wells will be collected over a 2-year period starting in 2024 and completing in 2026 (Table 1). Data analysis and reporting will extend through 2027. Another portion of the project includes sampling treatment systems for effectiveness of PFAS removal. This portion of the project will start in 2025 and be completed in 2028. This communications plan will be updated, as needed, when the treatment system sampling portion of the project begins.

[4] Human consumption means the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including but not limited to, preparing food and washing dishes per Section §116275(e) of the Health and Safety Code.

TABLE 1. PROJECTED PROJECT TIMELINE - DAC/SDAC WELL SAMPLING

	2024-Q1	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2	2025-Q3	2025-Q4	2026-Q1	2026-Q2	2026-Q3	2026-Q4	2027-Q1	2027-Q2	2027-Q3	2027-Q4	2028-Q1	2028-Q2	2028-Q3	2028-Q4
Sampling		X	X	X	X	X	X	X	X	X	X	X								
Sample Analysis		X	X	X	X	X	X	X	X	X	X	X	X							
Lab Reporting		X	X	X	X	X	X	X	X	X	X	X	X	X						
Draft Summary Report													X	X	X					
Final Summary Report																	X			

TABLE 2. PROJECTED PROJECT TIMELINE - TREATMENT SYSTEM SAMPLING

	2024-Q1	2024-Q2	2024-Q3	2024-Q4	2025-Q1	2025-Q2	2025-Q3	2025-Q4	2026-Q1	2026-Q2	2026-Q3	2026-Q4	2027-Q1	2027-Q2	2027-Q3	2027-Q4	2028-Q1	2028-Q2	2028-Q3	2028-Q4
Sampling						X	X	X	X	X	X	X								
Sample Analysis						X	X	X	X	X	X	X	X	X						
Lab Reporting							X	X	X	X	X	X	X	X	X	X				
Draft Summary Report																	X	X	X	
Final Summary Report																				X

Note: Initiation of the treatment system sampling will be based on available funding and systems installing treatment.

3. KEY PROJECT REPRESENTATIVES AND CONTACT INFORMATION

This project includes a variety of project representatives and interested parties. Listed below are agencies and community and Tribal interests that have been identified as key parties to supply and receive information. Other project representatives and interested parties may be identified in the future as the needs of the project evolves.

3.1 STATE WATER BOARD'S KEY REPRESENTATIVES AND CONTACTS

- State Water Board Members
- State Water Board management
- Regulatory agency management and staff, including Regional Water Boards

The purpose of the following table is to provide direct and easy understanding of the contact information of key State Water Board's individuals involved in this project.

TABLE 3. STATE WATER BOARD'S KEY PROJECT REPRESENTATIVES

NAME	CONTACT INFORMATION	DIVISION	ROLE
DAN NEWTON	(916) 449-5596 Dan.Newton@waterboards.ca.gov	Division of Drinking Water	Project Director
WENDY LINCK	(916) 323-0888 Wendy.Linck@waterboards.ca.gov	Division of Water Quality	Project Manager
ERICA KALVE	(916) 341-5485 Erica.Kalve@waterboards.ca.gov	Division of Water Quality	Project Coordinator and PFAS Technical Advisor
ANDREW HAMILTON	(916) 341-5286 Andrew.Hamilton@waterboards.ca.gov	Office of Information Management	QA Officer
DAVID ALTARE	(916) 319-0245 david.altare@waterboards.ca.gov	Office of Information Management	Data Manager
MOLLY WILLIAMS	(916) 341-5908 Molly.Williams@Waterboards.ca.gov	Office of Public Participation	Public Participation Coordinator

3.2 STATE WATER BOARD'S KEY INTERESTED PARTIES AND CONTACTS

- Federal agencies, such as the U.S. EPA
- Water Districts and their consultants
- Water Board's contracted sampling providers and analytical laboratories
- California Native American Tribes (Tribes)
- Environmental justice organizations and local community groups
- General members of the public

Key organizations involved in this project are listed in Table 3.

TABLE 4. KEY REPRESENTATIVES IDENTIFIED BY THE STATE WATER BOARD

ORGANIZATION NAME	GEOGRAPHICAL REPRESENTATION	CATEGORY*	CONTACT INFORMATION
Clean Water Action	California Statewide	EJ	ANDRIA VENTURA aventura@cleanwater.org
Natural Resources Defense Council	National	EJ	ANNA READE areade@nrdc.org
U.S. Environmental Protection Agency	Pacific Southwest Region, Region 9	TA	MATTHEW SMALL small.matthew@epa.gov

ORGANIZATION NAME	GEOGRAPHICAL REPRESENTATION	CATEGORY*	CONTACT INFORMATION
			(415) 972-3366
California State University Sacramento	California Statewide	TA	BRIAN CURRIER brian.currier@owp.csus.edu (530) 300-3593

Category: Technical Assistance (TA); Environmental Justice Research, Public Policy, Advocacy (EJ)

4. COMMUNITY PROFILE

This section summarizes the racial and linguistic demographics, SAFER Status, and pollution burden affected by the communities in the areas where the wells will be sampled for this project. This project includes the sampling of approximately 3,819 public water supply wells located within 53 of the 58 counties in the state (Table 5).

TABLE 5. NUMBER OF DAC/SDACS WELLS FOR THIS PROJECT PER COUNTY

COUNTY NAME	NUMBER OF WELLS	COUNTY NAME	NUMBER OF WELLS
Alameda	1	Orange	7
Alpine	5	Placer	8
Amador	12	Plumas	46
Butte	51	Riverside	268
Calaveras	12	Sacramento	200
Colusa	19	San Benito	3
Contra Costa	15	San Bernardino	508
Del Norte	19	San Diego	85
El Dorado	10	San Joaquin	78
Fresno	363	San Luis Obispo	29
Glenn	27	Santa Barbara	39
Humboldt	47	Santa Cruz	4
Imperial	20	Shasta	72
Inyo	60	Sierra	7
Kern	346	Siskiyou	33
Kings	31	Solano	2
Lake	30	Sonoma	71
Lassen	21	Stanislaus	131
Los Angeles	203	Sutter	9
Madera	117	Tehama	65
Mariposa	30	Trinity	22
Mendocino	76	Tulare	218
Merced	88	Tuolumne	68
Modoc	11	Ventura	30
Mono	10	Yolo	18
Monterey	76	Yuba	37
Nevada	11	**Grand Total**	**3,769**

4.1 COMMUNITY PROFILE SUMMARY

Project well locations are in counties representing a large diversity of races and ethnicities, which results in a diverse set of languages spoken. The predominant language spoken other than English is Spanish, Chinese, Arabic, and French at greater than 5% for any single language. African languages were also identified at 9% but the 2021 American Community Survey (1-year estimates) data is not specific to the hundreds of African languages. Additionally, the ACS data was not specific on the varieties of Chinese but for this plan have assumed Cantonese and Mandarin.

Vietnamese and West Germanic are the most common third languages spoken. The median percent of the population that speaks another language at home other than English is 38.5%; whereas populations that do not predominately speak English is low at 15%. Data used for these statistics are provided in Appendix A.

Translation services will be provided for materials (fact sheets, FAQs, health-based information) for single languages greater than 5% of population other than English. As determined for this project, materials will be provided in English, Chinese (Cantonese and Mandarin), Arabic, and French.

The State Water Board's web-based SAFER Dashboard[5] displays the current list of Failing public water systems and incorporates the results from the latest State Water Board's 2023 Drinking Water Needs Assessment Report[6] for public water systems. The Dashboard identifies Failing and At-Risk public water systems based on multiple risk categories: water quality, accessibility, affordability, and Technical, Managerial, and Financial (TMF) capacity. Overall, nearly 50% of the public water systems as part of this Project are not at risk or potentially at risk to provide adequate drinking water compared to 66% statewide. Approximately 15% of the Project water systems are at risk, 20% failing, and 16% not assessed (not failing and not part of the 2023 Drinking Water Needs Assessment Report). More information is provided in Appendix A.

Pollution burden percentiles vary from low to high, with 100 representing a high pollution burden and 0 low pollution burden. For this Project, 36% of the public water systems are located within census tracts with the highest pollution burden, 30% in the moderate pollution burden, and 34% in the lowest pollution burden[7].

Details on the racial and linguistic demographics, SAFER and Drinking Water Risk Assessment Status, and pollution burden on the public water systems within the project area are provided in Appendices A and B.

[5] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/saferdashboard.html
[6]https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/needs/2023needsassessment.pdf
[7] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

5. COMMUNICATION AND ENGAGEMENT PLAN

The Division of Drinking Water notified the public water systems of the sampling efforts using the 2024 Order. California Health and Safety Code section 116378 authorizes the State Water Board to require public water systems to monitor for PFAS. The 2024 Order provides information about the well sampling. It includes a date by which all public water systems listed in the 2024 Order must sample. The 2024 Order consists of the following items.

- Cover letter to the public water system providing the reasoning for the Order and the testing, and links to additional information and resources about PFAS
- General Order detailing the requirements for sampling and reporting results to their providers
- List of public water system names and their wells (sources) that require testing,
- List of PFAS constituent targeted for analytical testing
- List of Consumer Confidence Report Detection Level for each PFAS constituent

5.1 WELL TESTING RESULTS

This project includes the sampling and testing of public water supply wells. The results from the testing will require public water systems to provide timely notification whenever an advisory level, in the form of a notification or response level, is exceeded per state law (Health and Safety Code section 116455).

There are currently four PFAS chemicals with notification and response levels (Table 6). Additional notification and response levels may be issued during this project.

TABLE 6. STATE WATER BOARD PFAS NOTIFICATION LEVELS

	CCRDL (NG/L)	NOTIFICATION LEVEL (NG/L)	RESPONSE LEVEL (NG/L)
PERFLUOROOCTANOIC ACID (PFOA)	4.0	5.1	10
PERFLUOROOCTANESULFONIC ACID (PFOS)	4.0	6.5	40
PERFLUOROBUTANESULFONIC ACID (PFBS)	3.0	500	5,000
PERFLUOROHEXANESULFONIC ACID (PFHXS)	3.0	3	20

CCRDL = Consumer Confidence Report Detection Level
ng/L = nanograms per liter

A PFAS detection means that the testing has found an amount of any PFAS constituent that is higher than the minimum amount we can measure, referred to as the Consumer Confidence Report Detection Level (CCRDL).

PFAS with notification or response levels have additional requirements per state law (Health and Safety Code section.116378). Public water systems with wells are being tested as part of this project per the 2024 Order that requires the public water systems to report the detection if the level exceeds either the notification or response level. Additionally, if any monitoring undertaken pursuant to the 2024 Order issued under section 116378 results in a confirmed detection of PFAS for any analyte tested, the public water system shall report the confirmed detection in the water system's annual Consumer Confidence Report. When a confirmed detection exceeds the response level, the public water system will:

- report that detection in the water system's annual consumer confidence report.
- take a water source where detected levels exceed the response level out of use or provide public notification (as specified in Health and Safety §116378) within 30 days of the confirmed detection.

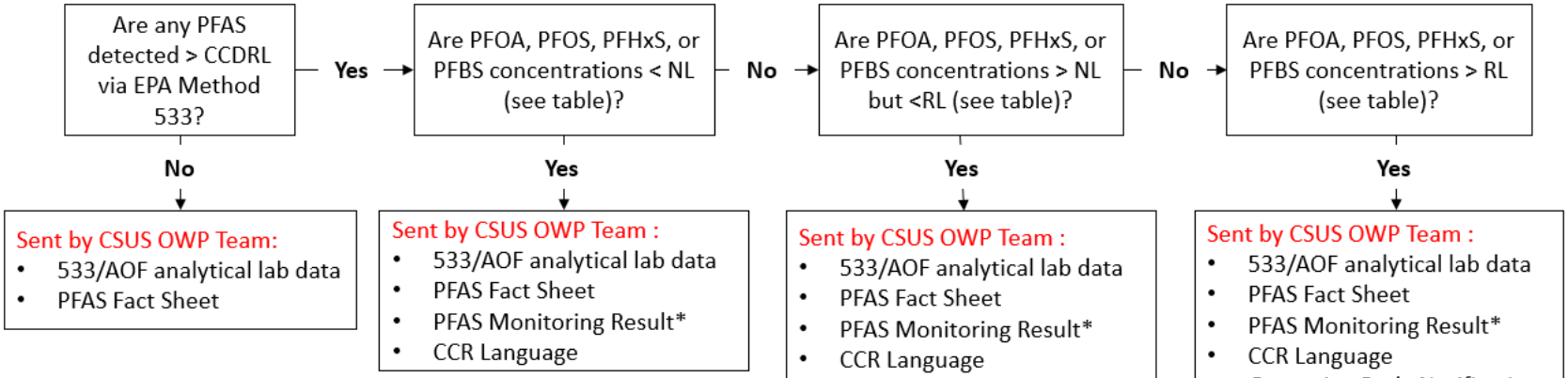
5.2 DELIVERY OF INFORMATION TO PUBLIC WATER SYSTEMS

Testing results from this project will be communicated to the public water system by the State Water Board's technical assistance provided, California State University Sacramento (CSUS). Upon receipt of the results, CSUS will send a copy of the results along with additional information to the public water system to be used to convey messaging to their customers. The decision flow chart (Figure 2) for the types of materials sent to the public water system will depend on the results of the well samples compared against the State Water Board's Notification Levels (Table 6). There are four primary decision points, as follows.

- Well test results with no detected PFAS above the CCRDL, the public water system will receive the analytical testing results and a fact sheet about PFAS and the AOF method.
- Well test results with PFOA, PFOS, PFHxS, or PFBS concentrations less than the notification level (NL) for that respective analyte will receive the same information as above along with text language for the public water system to utilize in their Annual Consumer Confidence Report that notifies the public of the detected results a Findings Letter from the State Water Board.
- Well test results with PFOA, PFOS, PFHxS, or PFBS concentrations greater than the NL for that respective analyte will receive same information as above along with a packet from the State Water Board with the governing notification and public notification packet.

The Findings Letter will include well sampling results for PFAS analytes reported, health-based info related to any PFAS exceeding established NL or RL and additional information on available treatment funding resources.

This project will rely primarily on electronic methods to deliver information to the public water systems. However, there could be a limited number of public water systems who may not have access to electronic information via the internet and, in those cases, any information being distributed via internet will also be sent via mail to those systems.



*Includes well sampling results for PFAS analytes reported using EPA Method 533 and AOF, and any applicable health-based information.

	US EPA MCLs (ng/L)		SWRCB CCRDL (ng/L)	SWRCB Notification Level (NL) (ng/L)	SWRCB Response Level (RL) (ng/L)
PFOA	4.0		4.0	5.1	10
PFOS	4.0		4.0	6.5	40
PFHxS	10		3.0	3	20
PFBS		Hazard Index = 1.0 (2 or more)	3.0	500	5,000
PFNA	10		4.0	Not established	Not established
HFPO-DA	10		5.0	Not established	Not established

AOF = Adsorbable Organic Fluorine
CCR = Consumer Confidence Report
CCRDL = Consumer Confidence Report Detection Level (for complete list: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas_ddw_general_order/docs/pfas_go_2022-0001-DDW_ExhibitB.pdf)
HFPO-DA = hexafluoropropylene oxide dimer acid (also referred to as Gen-X)
ng/L = nanograms per liter
PFHxS = perfluorohexanesulfonic acid
PFBS = perfluorobutanesulfonic acid
PFNA = perfluorononanoic acid
PFOA = perfluorooctanoic acid
PFOS = perfluorooctanesulfonic acid
PFAS = Per and Polyfluoroalkyl Substances
SWRCB = State Water Resources Control Board

FIGURE 2. DECISION FLOW CHART FOR INFORMATION SENT TO PUBLIC WATER SYSTEM BASED ON PFAS TEST RESULTS

5.3 DELIVERY OF INFORMATION TO ALL OTHER INTERESTED PARTIES

The primary means of providing information to the other interested parties will be electronically via the State Water Board's Division of Drinking Water PFAS website (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas.html) and the Water Board's PFAS website (https://www.waterboards.ca.gov/pfas/). Example information provided are frequently asked questions, contact information, laws and regulations, project updates, procedural changes, and various reports.

Project-related announcements may also be sent via email through govDelivery. Interested individuals may sign up this service by accessing the following link:

https://www.waterboards.ca.gov/resources/email_subscriptions/

- Enter email address – after entering email address an additional screen will appear to select informational topics. For this project,
    - Open "Drinking Water" and select "Drinking Water Program Announcements"
    - Open "Water Quality" and select "Per- and Polyfluoroalkyl Substances (PFAS)"

When general interest documents or information are posted to our website, a notification will be sent via the ListServe/govDelivery email subscription service notifying the subscribers that information is available.

Information regarding the project will also be available or disseminated through:

- State Water Board informational items,
- Water District maps with associated contact information,
- Water District webpages via a link to the PFAS project,
- Regional Water Board webpages via a link to the PFAS project, and the
- Office of Public Participation via the Tribal listserv.

5.4 INFORMATION DELIVERY TIMING

Information will be delivered to public water systems as soon as practicable after the testing data becomes available or project changes are planned or implemented. If the scope of the project changes necessitates a change in the sampling schedule, the relevant public water systems impacted by the change will be notified as soon as possible.

5.5 TRIBAL AND COMMUNITY ENGAGEMENT

Integrating opportunities to conduct public and Tribal outreach and engagement efforts will aid in the analysis of demographic considerations, environmental justice concerns, and human health impacts in relation to trends in the PFAS content in the drinking water source water across the state. For this project, the Division of Drinking Water's District Engineers have relationships with the public water systems and will continue to be the liaison for any public and tribal outreach, as needed.

In general, tribal and community engagement for this project will be guided by the principles of transparency, inclusivity, accessibility, environmental justice, and community well-being:

- Transparency
    - Share information with the public and explain how the data collected will be used.
    - Notify the public water systems of the testing results and provide educational materials and resources regarding the impacts of the results for their customers.
    - Follow up with interested parties throughout the project process and update information available online.
    - Work with interested parties in assisting with any follow-up that the public water system or its customers may request regarding the results or project.
    - Abide additional transparency concerns or conditions that may be applicable, such as the Sunshine laws in nine local governments in California (Alameda, Benicia, Contra Costa County, Gilroy, Milpitas, Oakland, Riverside, San Francisco and Vallejo) that require government agencies to maintain transparency and disclose their activities to the public.
- Inclusivity
    - Engagement goals and needs are identified.
    - Document engagement efforts and associated perspectives, concerns, and feedback to help inform project decisions.
    - Provide communications to non-customers, such as private well owners, regarding the project.
    - Recognition of the tribal system and discussion of the sampling program, as needed.
    - Provide public water systems materials for any tribal entities served or to provide to tribes on adjacent lands.
    - If requested, consult with Native American Tribes.
- Accessibility

  - Use plain language in communications and educational materials.
  - Use linguistic data collected and language access services to translate communications and project updates. Based on the linguistic data for the project counties obtained from the American Community Survey, Spanish is the most prevalent language (other than English) spoken in households, followed by Chinese (Cantonese and Mandarin), French, and Arabic. It is recommended that, where possible, any public noticing affiliated with the project is translated into these most prevalent languages.
  - Public outreach and engagement efforts should include interpreters that reflect the linguistic diversity of the area, especially if held in counties where the population (5% or more) speaks a language other than English.
  - Keep project webpages updated with the most recent project updates and contact information.
- Environmental Justice
  - To support the strategic direction of integrating racial equity and measuring impact as part of the 2023-2025 State Water Board Racial Equity Resolution and Action Plan[8],
    - Incorporate contaminant results into the Water Board's data systems (e.g. PFAS Mapping Tool: https://geotracker.waterboards.ca.gov/map/pfas_map) so that the data is transparent to the public and it can be viewed against other environmental cleanup sites. This data will assist in the prioritization of those systems for treatment.
    - Incorporate contaminant results data into the next version the Division of Drinking Water Needs Assessment Report and updates to the SAFER Dashboard (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/saferdashboard.html) showing failing, at-risk, potentially at-risk, and not at-risk public water systems in the state.
    - Provide language translations (other than English) for PFAS materials (fact sheet, frequently asked questions) to be provided to public water system for dissemination to their customers.
- Community Well-being
  - State Water Board Division of Drinking Water's District Engineers are most familiar with the water system and are available for the public water system's customers to ask questions and share perspectives. Contact information for the District Engineers is provided at https://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/DDWdistrictofficesmap.pdf.

[8] https://www.waterboards.ca.gov/racial_equity/docs/racial-equity-action-plan-final-en.pdf

- Use the data collected to support community needs.
- Address community needs that may come up, such as requests to discuss the project results or collect extra samples.
- Let the public know what they can do to reduce risks.

Additional information regarding project community profile demographics, pollution burden, and linguistic data can be found in Appendix A.

APPENDIX A. PROJECT COMMUNITY PROFILE DEMOGRAPHICS AND BURDENS

A.1 RACIAL DEMOGRAPHICS

Racial and ethnicity data was available for 37 of the 53 counties for this project from the 2021 American Community Survey (1-year estimates) (https://dof.ca.gov/reports/demographic-reports/american-community-survey/). The races and ethnicities of populations in these counties are diverse with some counties largely occupied by people identifying themselves as Hispanic/Latino or White – up to 85.8 and 80.4 percent respectively (Table 7). Much smaller percentages of the populations in these counties identify themselves as Asian, Black, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or Other. Racial and ethnicity percentages by county are provided in Appendix B (Table 10).

TABLE 7. RACIAL AND ETHNICITY POPULATION SUMMARY PERCENTAGES FOR PROJECT COUNTIES (BASED ON AVAILABLE 2021 AMERICAN COMMUNITY SURVEY (1-YEAR ESTIMATES) DATA

	HISPANIC OR LATINO	WHITE	BLACK	AMERICAN INDIAN AND ALASKA NATIVE	ASIAN	NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER	OTHER
MIN (PERCENT)	10.1	8.9	0.3	0.0	1.3	0.0	0.8
MEDIAN (PERCENT)	34.1	40.9	2.2	0.3	5.6	0.3	4.6
MAX (PERCENT)	85.8	80.4	12.3	4.2	32.5	1.2	10.0

A.2 LINGUISTIC DEMOGRAPHICS

Since there is such diversity of races and ethnicities in the population, it is expected that languages spoken at home would also be diverse. The 2021 American Community Survey (1-year estimates) data for the same 37 counties indicate that the percentage of the population 5 years and older who speak a language other than English varies from 6.9 to 74.1 percent (Table 8). Additionally, the same population 5 years and older who speak English “very well” ranges from 2.2 to 35.7 percent (Table 8). Population percentages for the ability to speak English by county is provided in Appendix B (Table 11).

TABLE 8. RACIAL AND ETHNICITY POPULATION PERCENTAGES FOR THE PROJECT COUNTIES (BASED ON AVAILABLE 2021 AMERICAN COMMUNITY SURVEY

	PERCENT OF POPULATION 5 YEARS AND OVER WHO SPEAK A LANGUAGE OTHER THAN ENGLISH AT HOME – ESTIMATE (+/- 5%)	PERCENT OF POPULATION 5 YEARS AND OVER WHO SPEAK ENGLISH LESS THAN "VERY WELL" – ESTIMATE (+/- 5%)
MINIMUM	6.9	2.2
MEDIAN	38.5	15.0
MAXIMUM	74.1	35.7

Languages spoken other than English for the Project counties include African languages, Arabic, Armenian, Chinese, French, German, Hindi, Indian languages, Korean, Laotian, Native American languages, Pacific Island languages, and Spanish (Figure 3). Spanish is the most common in households who also speak English. Vietnamese and West Germanic languages are the most prevalent spoken as their third languages (Figure 4). Table 12 in Appendix B includes linguistic data for the project counties obtained from the American Community Survey (https://www.census.gov/programs-surveys/acs).

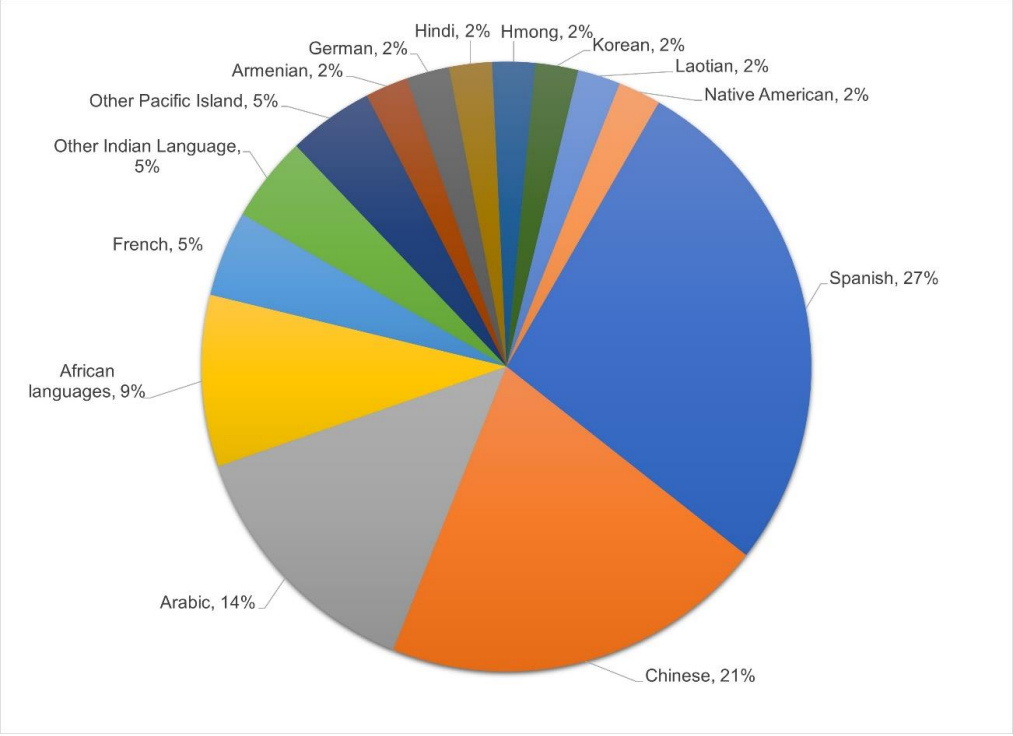


FIGURE 3. LANGUAGES SPOKEN OTHER THAN ENGLISH FOR THE PROJECT COUNTIES

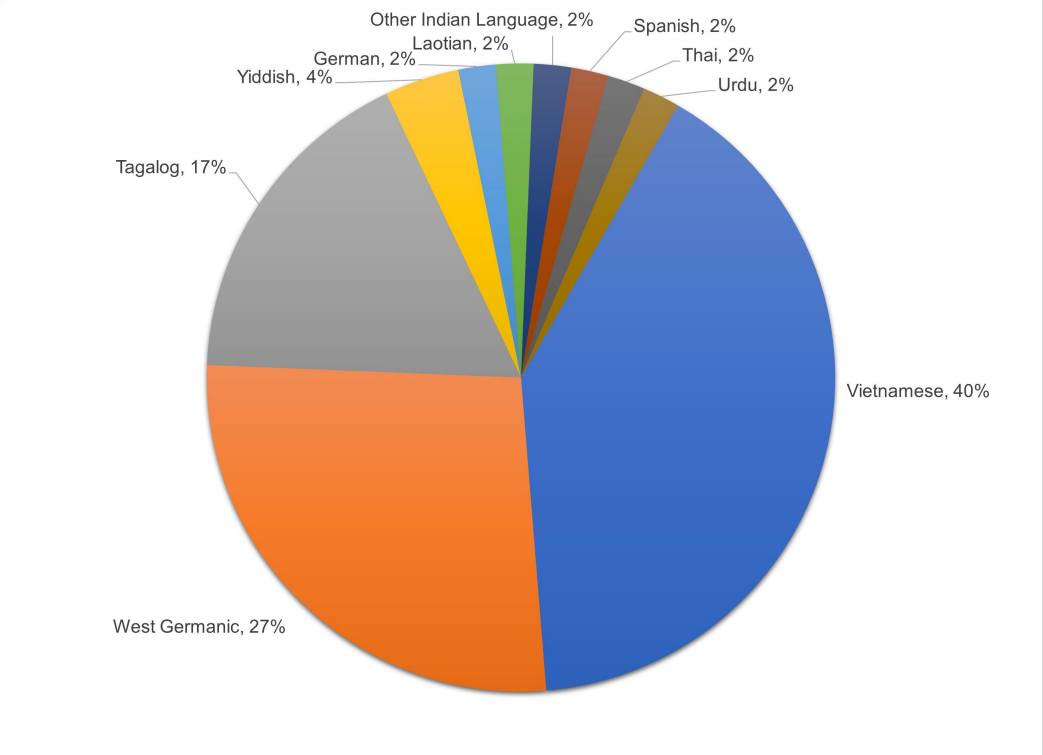


FIGURE 4. MOST PREVALENT LANGUAGES SPOKEN AS THEIR THIRD LANGUAGE

A.3 SAFER AND RISK ASSESSMENT STATUS

This project includes the sampling of public water systems wells that serve DACs and SDACs throughout the state. The definition used for DAC and SDAC follows.

> Disadvantaged Community is the entire service area of a community water system, or a community therein, in which the median household income (MHI)[9] is less than 80% of the statewide annual median household income level. (California Health & Safety Code, § 116275, subd. (aa).)
>
> Severely Disadvantaged Community is the categorization of an entire water-system service area where the MHI is less than 60% of the statewide MHI. (California Water Code § 13476, subd. (j))

The Division of Drinking Water annually assesses the risk to public water systems, state small water systems, and regions where domestic wells are at-risk of failing to sustainably provide sufficient safe and affordable drinking water. The 2023 Drinking

[9] Median Household Income (MHI) is the financial level that represents the middle value of revenue for an entire community averaging the total money received per each home and its occupants.

Water Needs Assessment Report[10] documents the results, data, and methodology used to identify systems at-risk or potentially at-risk of failing to meet one or more key Human Right to Water goals: (1) providing safe drinking water; (2) accessible drinking water; (3) affordable drinking water; and/or (4) maintaining a sustainable water system. The risk indicators include water quality, accessibility, affordability, and Technical, Managerial and Financial (TMF) capacity based on the water system's ability to remain in compliance with safe drinking water standards. The Needs Assessment Report includes a Risk Assessment that evaluates public water systems at risk of failing and have the potential to provide an inadequate supply of safe drinking water.

The results of the Risk Assessment and a list of failing water systems are accessible online through the State Water Board's SAFER Dashboard[11]. The SAFER Dashboard displays summary statistics of the number of failing and at-risk public water systems in different risk categories. The risk categories are: Failing, At-Risk or Potentially At-Risk of failing, Not At-Risk of failing, or Not Assessed.

The results from the 2023 Drinking Water Needs Assessment Report, as it applies to the Project public water systems and statewide results, were compared and indicate that nearly 50% of the public water systems as part of this Project are not at risk or potentially at risk to provide adequate drinking water compared to 66% statewide (Table 9). Definitions and methodologies for the data used in determining the statistics in Table 9 are provided in the 2023 Drinking Water Needs Assessment Report.

TABLE 9. SAFER STATUS STATEWIDE AND PROJECT WATER SYSTEMS

RISK CATEGORY	PROJECT WATER SYSTEMS	STATEWIDE WATER SYSTEMS (as of 12/5/2023 using the SAFER Dashboard)
AT-RISK	182 (15%)	531 (16%)
FAILING	244 (20%)	388 (12%)
NOT ASSESSED (NOT FAILING)	195 (16%)	184 (6%)
NOT AT-RISK	579 (47%)	1,676 (52%)
POTENTIALLY AT-RISK	27 (2%)	453 (14%)
GRAND TOTAL	*1,227*	*3,232*

Note that the water system's Risk Assessment performance is based on the most current Risk Assessment methodology and data available. The failing list of water

[10] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/needs/2023needsassessment.pdf
[11] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/saferdashboard.html

systems is updated daily in the SAFER Dashboard. Risk Assessment results and corresponding performance for individual risk indicators are updated on the SAFER Dashboard on a quarterly basis. Therefore, the data presented above is only accurate at the time of download and could change.

A.4 POLLUTION BURDEN

California Office of Environmental Health Hazard Assessment's CalEnviroScreen[12] is a screening methodology that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution. Scores range from 0 to 100, with 100 representing a high pollution burden and 0 low pollution burden. The lowest number of public water systems (433) are in the lowest pollution burden (0 to 30 percentile), 381 public water systems are located in the moderate pollution burden (30 to 60 percentile) and 413 public water systems are located in the highest pollution burden (greater than 60 percentile) (Figure 5).

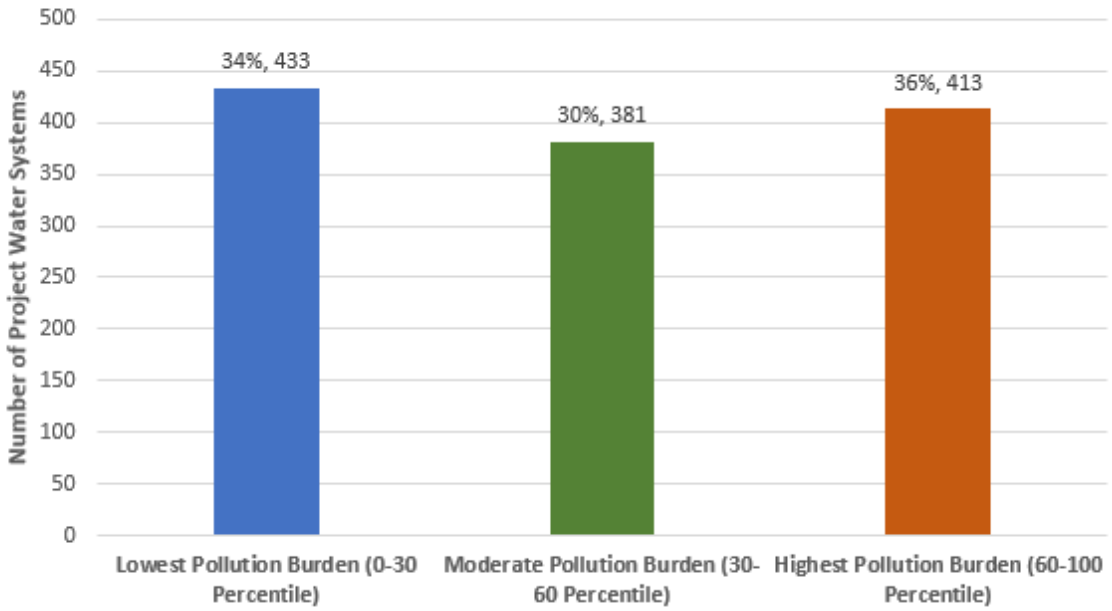


FIGURE 5. POLLUTION BURDEN CATEGORY BY PROJECT PUBLIC WATER SYSTEM

[12] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

APPENDIX B. RACE, ETHNICITY, AND LINGUISTIC DATA

TABLE 10. RACE AND ETHNICITY DEMOGRAPHICS PER COUNTY (+/- 0.2%)*

County Name	Hispanic or Latino (%)	White (%)	Black (%)	American Indian and Alaska Native (%)	Asian (%)	Native Hawaiian and Other Pacific Islander (%)	Other (%)
Alameda	22.4	28.3	9.6	0.3	32.5	0.8	6.2
Butte	18.4	67.9	1.9	0.6	5.4	0.3	5.5
Contra Costa	26.8	39.8	8.4	0.2	18.0	0.5	6.4
El Dorado	13.8	73.6	0.8	0.3	5.0	0.0	6.5
Fresno	54.7	26.3	4.1	0.4	10.6	0.2	3.7
Humboldt	12.9	68.6	0.8	4.2	3.2	0.4	10.0
Imperial	85.8	8.9	2.5	0.7	1.3	0.0	0.8
Kern	56.1	30.2	4.9	0.4	4.7	0.1	3.5
Kings	56.6	29.4	6.6	0.6	4.1	0.2	2.5
Lake	23.9	64.0	2.1	1.2	1.5	1.0	6.2
Los Angeles	49.1	24.6	7.3	0.1	14.6	0.2	4.0
Madera	60.2	30.7	2.2	0.5	2.2	0.2	4.0
Mendocino	27.2	62.6	0.7	2.3	2.3	0.3	4.6
Merced	62.5	24.3	2.8	0.3	7.5	0.2	2.4
Monterey	60.4	27.6	2.2	0.2	5.6	0.5	3.5
Nevada	10.1	80.4	0.3	0.3	1.9	0.0	6.9
Orange	34.1	37.6	1.7	0.1	21.9	0.2	4.4
Placer	15.2	67.3	1.3	0.2	8.1	0.1	7.9
Riverside	51.6	31.1	6.1	0.2	6.6	0.3	4.1
Sacramento	24.4	41.1	9.5	0.2	17.0	1.1	6.8
San Benito	62.0	30.5	0.5	0.1	3.1	1.1	2.7
San Bernardino	55.8	24.8	7.6	0.2	7.7	0.3	3.5
San Diego	34.8	42.6	4.4	0.2	11.8	0.4	5.7
San Joaquin	43.0	27.7	6.4	0.3	17.9	0.7	4.2
San Luis Obispo	23.8	65.5	1.2	0.1	3.1	0.0	6.2
Santa Barbara	47.2	41.6	1.8	0.1	5.2	0.1	3.9
Santa Cruz	34.4	54.4	0.7	0.0	4.7	0.0	5.7
Shasta	11.4	75.3	1.2	1.5	3.3	0.1	7.2
Solano	28.6	34.2	12.3	0.1	15.8	0.6	8.3
Sonoma	28.3	60.2	1.6	0.1	4.5	0.4	4.9
Stanislaus	49.5	37.3	2.7	0.3	5.7	0.7	4.0
Sutter	32.9	40.9	1.5	0.6	14.8	1.2	8.0
Tehama	27.3	64.4	1.4	0.8	1.8	0.2	4.0
Tulare	66.7	26.0	1.5	0.5	3.6	0.1	1.5
Ventura	44.1	42.6	1.6	0.2	7.2	0.1	4.3
Yolo	32.6	44.1	2.4	0.3	15.1	0.3	5.3
Yuba	30.5	49.1	3.9	1.0	8.0	0.4	7.2
Minimum	*10.1*	*8.9*	*0.3*	*0.0*	*1.3*	*0.0*	*0.7*
Median	*34.1*	*40.9*	*2.2*	*0.3*	*5.6*	*0.3*	*4.4*

County Name	Hispanic or Latino (%)	White (%)	Black (%)	American Indian and Alaska Native (%)	Asian (%)	Native Hawaiian and Other Pacific Islander (%)	Other (%)
Maximum	*85.8*	*80.4*	*12.3*	*4.2*	*32.5*	*1.2*	*8.5*

*Source: 2021 American Community Survey (ACS)(1-year estimates) (https://dof.ca.gov/reports/demographic-reports/american-community-survey/).
The ACS data set has data for 37 of the 53 counties for the project.

TABLE 11. ABILITY TO SPEAK ENGLISH BY COUNTY (+/- 5%)*

County Name	Percent of Population 5 years and over who speak a language other than English at home – Estimate (+/- 5%)	Percent of Population 5 years and over who speak English less than "very well" – Estimate (+/- 5%)
Alameda	46.9	17.3
Butte	16.6	4.4
Contra Costa	36.7	13.8
El Dorado	12.8	4.3
Fresno	42.7	16.6
Humboldt	10.0	4.2
Imperial	74.1	35.7
Kern	45.6	17.9
Kings	41.6	17.5
Lake	19.0	6.8
Los Angeles	55.3	23.2
Madera	45.9	18.1
Mendocino	20.5	8.9
Merced	52.8	21.3
Monterey	55.4	25.3
Nevada	9.0	3.2
Orange	45.8	18.3
Placer	15.6	4.9
Riverside	42.1	14.8
Sacramento	32.1	13.2
San Benito	41.8	16.8
San Bernardino	43.7	14.8
San Diego	36.3	13.1
San Joaquin	40.2	16.7
San Luis Obispo	15.7	6.0
Santa Barbara	38.4	16.2
Santa Cruz	32.8	12.2
Shasta	6.9	2.2
Solano	30.9	12.2
Sonoma	26.4	11.8
Stanislaus	45.8	17.7
Sutter	36.3	18.1
Tehama	18.9	4.7
Tulare	49.6	26.1

County Name	Percent of Population 5 years and over who speak a language other than English at home – Estimate (+/- 5%)	Percent of Population 5 years and over who speak English less than "very well" – Estimate (+/- 5%)
Ventura	38.6	15.2
Yolo	38.5	13.1
Yuba	27.1	8.2
Minimum	*6.9*	*2.2*
Median	*38.5*	*15.0*
Maximum	*74.1*	*35.7*

*Source: 2021 American Community Survey (ACS) (1-year estimates) (https://dof.ca.gov/reports/demographic-reports/american-community-survey/).
The ACS data set has data for 37 of the 53 counties for the project.

TABLE 12. LANGUAGES SPOKEN OTHER THAN ENGLISH FOR PROJECT COUNTIES

County Name	Most Prevalent Language other than English	Third Language	Number of Languages Spoken
Alameda	African language	Vietnamese	35
Alpine	Native American language	Vietnamese	3
Amador	Hmong	Tagalog	9
Butte		Vietnamese	24
Calaveras		West Germanic	13
Colusa	Spanish	Vietnamese	7
Contra Costa	African language	West Germanic	34
Del Norte	Hindi	Tagalog	10
El Dorado	Chinese	Vietnamese	23
Fresno	Arabic	Vietnamese	33
Glenn	Spanish	Laotian	9
Humboldt	Armenian	Vietnamese	24
Imperial	Spanish	Tagalog	16
Inyo	Spanish	Other Indian Language	9
Kern	Arabic	Vietnamese	27
Kings	Spanish	Urdu	15
Lake	French	West Germanic	16
Lassen	Other Pacific Island language	Spanish	9
Los Angeles		West Germanic	39
Madera	German	Vietnamese	23
Mariposa	Chinese	Tagalog	9
Mendocino	Spanish	Tagalog	19
Merced	Other Indian Language	Vietnamese	20
Modoc	Spanish	Thai	7
Mono	Spanish	German	4
Monterey		Vietnamese	28
Nevada	Chinese	West Germanic	19
Orange	Arabic	Yiddish	37

County Name	Most Prevalent Language other than English	Third Language	Number of Languages Spoken
Placer		Vietnamese	28
Plumas		Tagalog	10
Riverside		West Germanic	36
Sacramento	Arabic	Vietnamese	34
San Benito	Spanish	Tagalog	12
San Bernardino		West Germanic	37
San Diego		West Germanic	38
San Joaquin	Arabic	Vietnamese	23
San Luis Obispo	Arabic	West Germanic	23
Santa Barbara	Chinese	Vietnamese	30
Santa Cruz	Chinese	Vietnamese	25
Shasta		Tagalog	26
Sierra	Spanish		3
Siskiyou	Laotian	Vietnamese	17
Solano	Chinese	West Germanic	27
Sonoma	African language	West Germanic	31
Stanislaus	Chinese	Yiddish	29
Sutter	Other Indian Language	Vietnamese	18
Tehama	Korean	West Germanic	13
Trinity	Other Pacific Island language		5
Tulare	Spanish	West Germanic	23
Tuolumne	Chinese	Tagalog	12
Ventura	African language	West Germanic	31
Yolo	Chinese	Vietnamese	22
Yuba	Spanish	Vietnamese	14