

**CENTRAL COAST REGION
ENVIRONMENTAL JUSTICE PROJECT UPDATES**

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PROJECT: CENTRAL COAST DRINKING WATER WELL TESTING PROGRAM

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SUMMARY

The Central Coast Drinking Water Well Testing Program (Program) is a key component of the Central Coast Ambient Monitoring Program – Groundwater Assessment Program (CCAMP-GAP) and the primary purpose is to provide free well testing for domestic wells and small water systems. The Program began providing free well testing in October 2018. Due to the COVID-19 pandemic, the Program's well testing activities were suspended for a 14-month period starting in March 2020, and well testing began again in June 2021. As of February 2022, the Program has tested a total of 420 individual wells. The results for the most recent well data are generally consistent with the findings of the Program's overall dataset, indicating that approximately 40% of the drinking water wells tested have at least one exceedance of a Primary Maximum Contaminant Level (MCL) for drinking water or the Program's interim screening level for chromium VI. The most commonly observed contaminants are nitrate, chromium VI, and arsenic. These results reinforce the importance of testing domestic wells and small water systems to ensure safe drinking water.

DISCUSSION

The primary purpose of the Program is to provide free well testing to people who get their drinking water from a domestic well or small water system, and to provide data to help them make informed decisions about their drinking water. Participation in the program is both voluntary and free to anyone in the region who receives their drinking water from a private domestic well, a local small water system with two to four residential connections, or a state small water system with five to 14 residential connections. Consistent with the Central Coast Regional Water Quality Control Board's (Central Coast Water Board) environmental justice (EJ) priorities and human right to water Resolution¹, resources are prioritized to conduct outreach and testing to support underrepresented communities².

¹ [Human Right to Water Resolution No. R3-2017-0004, https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/2017-0004_hrtw_fnl.pdf](https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/2017-0004_hrtw_fnl.pdf)

² Underrepresented Communities include but are not limited to Disadvantaged Communities (DACs), Severely Disadvantaged Communities (SDACs), Economically Distressed Area (EDAs), Tribes, Environmentally Disadvantaged Communities (EnvDACs), and Fringe Areas.

The Program is implemented by Tetra Tech, Inc. under contract with the Bay Foundation of Morro Bay in coordination with Central Coast Water Board staff and local agencies and data are publicly available³ to stakeholders including community groups, EJ organizations, water purveyors, local environmental health and groundwater agencies, and the Division of Drinking Water. The data inform groundwater quality assessments and decision-making regarding groundwater quality, drinking water quality, Safe and Affordable Funding for Equity and Resilience (SAFER), and the Sustainable Groundwater Management Act (SGMA). Additionally, Program data support several of the Central Coast Water Board's EJ and HRTW objectives, such as:

- Assess drinking water quality
- Increase EJ capacity and support community engagement
- Inform need for short-term emergency replacement water programs
- Develop long-term drinking water solutions
- Inform regulatory priorities

The Program's first 17 months of implementation (October 2018 through March 2020) resulted in 326 wells sampled. Staff provided the Central Coast Water Board with results and interpretation of the data in January 2020⁴ and January 2021⁵. Between the Program's restart⁶ in June 2021 and February 2022, an additional 94 wells have been sampled, resulting in a total of 420 wells in the dataset. Well testing has been focused on San Luis Obispo, Monterey, Santa Cruz and San Benito Counties. Future testing is planned for Santa Barbara County, however outreach activities have been delayed due to the pandemic.

The Program is funded through CCAMP-GAP by the Bay Foundation of Morro Bay and the current allocation of Program funds is nearly exhausted. Therefore, in coordination with the Community Water Center, the remaining funds for well testing are prioritized for underrepresented communities. For participants whose results indicate that their drinking water may be unsafe, the Program also provides information about safe drinking water resources, including the availability of free bottled water, such as the Central Coast Regional Bottled Water Program⁷, which is funded by the State Water Board and implemented by the Community Water Center. Additional information regarding the status CCAMP-GAP endowment will be discussed at the April 21-22, 2022 Board Meeting.

³ State Water Board's Groundwater Ambient Monitoring and Assessment Groundwater Information System (GAMA GIS) <https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/Default.asp>

⁴https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2020/01_jan/attachments/item5_stfrpt.pdf

⁵ https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2021/01_jan_28/item7_att2.pdf

⁶ Tetra Tech, Inc. updated their safety protocols to account for both COVID-19 and wildfires. Protecting the health and safety of both the Program's participants and the testing technicians has been and will continue to be the Program's highest priority.

⁷ Regional Bottled Water Program for Central Coast Households

<https://sites.google.com/communitywatercenter.org/central-coast-regional-bottled/home>

Constituents Analyzed

The Program analyzes drinking water well samples for 18 constituents. However, staff focus their attention on four constituents with known serious potential health impacts, as shown below (listed with their respective primary maximum contaminant level [MCL]).

- Arsenic – 10 micrograms per liter (ug/L)
- Nitrate as N – 10 milligrams per liter (mg/L)
- Perchlorate – 6 ug/L
- 1,2,3-Trichloropropane (1,2,3-TCP) – 0.005 ug/L

Additionally, staff also evaluate chromium VI results. Chromium VI does not currently have an MCL. Therefore, to identify potential human health risks, Central Coast Water Board staff use the previous MCL of 10 ug/L as an interim screening level while the State Water Board develops a new MCL.

Program Results

Since the last update to the Central Coast Water Board in January 2021, an additional 94 wells have been sampled and added to the dataset. These samples were collected in the timeframe from June 2021 through to February 2022. Of these 94 wells, 45 wells (48%) show at least one exceedance of a primary MCL and/or the Program's interim screening level for chromium VI. These results are generally consistent with the Program's previous results.

Including the 94 wells discussed above, a total of 420 wells have been tested since the Program began in October 2018. Drinking water wells are sampled one time and well owners are encouraged to conduct their own follow-up testing to confirm drinking water quality. Of the total 420 wells tested, 170 wells (40%) show at least one exceedance of a primary MCL and/or the Program's interim screening level for chromium VI. Nitrate, chromium VI and arsenic are the most commonly detected contaminants. Figure 1 shows all sample locations and the locations of wells with exceedances. A summary table of all well test results, by county, is presented below in Table 1.

CONCLUSION

After a 14-month hiatus beginning in March 2020 due to COVID-19, the Program's well testing activities resumed in June 2021. Based on the findings of the Program's overall dataset, approximately 40% of drinking water wells tested have at least one exceedance of a primary MCL and/or the Program's interim screening level for chromium VI. Nitrate, chromium VI and arsenic are the most commonly detected contaminants.

The original allocation of funds for this Program is nearly exhausted and additional funding is necessary to ensure that this service continues uninterrupted for those on the central coast who rely on private or small system wells to provide their drinking water. Central Coast Water Board staff are currently pursuing potential funding sources with the goal of achieving long-term Programmatic implementation throughout the central

coast. Staff will continue to keep the Central Coast Water Board informed regarding the status of this Program.

Interested parties can learn more about the Program and be screened for eligibility by calling 1 (844) 613-5152 (English / Español) or by filling out an online and smartphone compatible application form via one of the following websites [Central Coast Well Testing \(www.centralcoastwelltesting.org\)](http://www.centralcoastwelltesting.org) and [Costa Central Analisis De Pozos \(http://www.ccanalisisdepozos.org\)](http://www.ccanalisisdepozos.org).

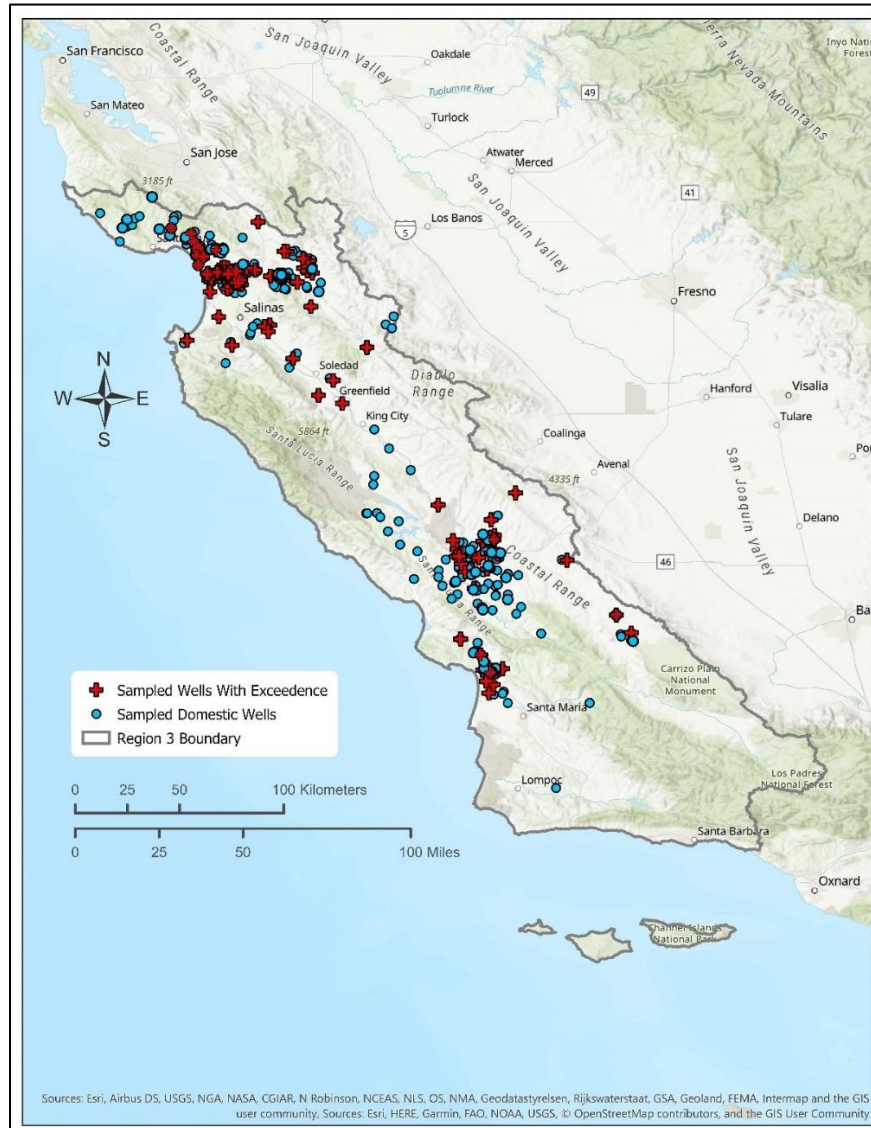


Figure 1. Drinking water wells tested from October 2018 through February 2022. Blue circles represent wells without an exceedance. Red crosses show wells with one or more exceedance.

Table 1. Summary of results for all drinking water wells tested between October 2018 and February 2022, including exceedances by County (Note: some wells have more than one exceedance).

County	Number of Samples in County	Nitrate as N ≥ 10 mg/L	Arsenic ≥ 10 ug/L	1,2,3-TCP ≥ 0.005 ug/L	Perchlorate ≥ 6 ug/L	Chromium VI ≥ 10 ug/L*
San Luis Obispo	155	15 (10%)	24 (15%)	0	0	2 (1%)
Monterey	139	63 (45%)	8 (6%)	23 (17%)	2 (1.4%)	32 (23%)
San Benito	76	10 (13%)	8 (10%)	3 (4%)	1	5 (7%)
Santa Cruz	46	0	4 (9%)	0	0	7 (15%)
Santa Clara	2	1	0	0	0	0
Santa Barbara	2	0	0	0	0	0
TOTAL	420	89 (21%)	44 (10%)	26 (6%)	3 (0.7%)	46 (11%)

*Interim Program screening level based on former MCL.

PROJECT: BOTTLED WATER PROGRAM FOR CENTRAL COAST REGION

CONTACT: Community Water Center

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The Community Water Center (CWC) received grant funds from the State Water Board's SAFER Program⁸ to provide bottled water to eligible disadvantaged households served by private wells or small water systems that do not meet safe drinking water standards, and that are not already receiving bottled water through a settlement agreement or other similar arrangement.

On February 3, 2022, the State Water Board amended the CWC contract to extend this vital service until the end of February 2024. The total contract amount was increased to \$1,461,104. The State Water Board has waived certain documentation requirements due to the drought through at least April 15, 2022 and possibly longer.

As of March 21, 2022, a total of 170 households are enrolled in the program. Twenty-eight (28) additional households were previously enrolled under a waiver provided by the state during the COVID-19 emergency and were unenrolled because they did not meet income eligibility requirements, or they no longer live at the enrolled address.

CWC has delivered 127,222 gallons of water through this program. Access to this water has been critical to residents by providing safe drinking water, but it was also important early on during the pandemic, as water was not available to purchase in many grocery stores.

The Central Coast Water Board's well testing program restarted in June 2021. CWC has provided outreach and facilitated the testing of 67 wells in high priority areas.

CWC conducted outreach to all households previously tested through the Central Coast Water Board's well testing program located in DAC census areas in the northern Central Coast Region that had primary contaminant exceedances and were not eligible for other bottled water programs. CWC enrolled 22 households that qualified for the program (and were not already implementing a solution).

In March 2021, CWC supported the Pajaro Valley Water Management Agency to distribute the bottled water program flyer to 1,550 rural residents.

CWC conducted outreach to 34 households in two small public water systems, Elkhorn WS #04 (high 1,2,3-TCP) and Valenzuela WS (high nitrate). CWC enrolled all 14 households served by the Valenzuela WS, an SDAC water system. CWC conducted outreach to all households served by Elkhorn WS #04 and enrolled the five (5) households that qualified for this program.

CWC conducted outreach to 60 households served by local and state small water systems in Monterey County. These households were prioritized from a larger list of all out-of-compliance small water systems based upon their proximity to a possible long-term solution and referrals from others already participating in the program. CWC is providing interim bottled water to households served by 16 water systems.⁹

⁸ <https://www.waterboards.ca.gov/safer/>.

⁹ Hall Rd WS #11, Hudson Landing WS #03, Hudson Landing WS #08, Jacklyn Ct MWC, Johnson Rd WS #03, Live Oak Rd WS #04, Live Oak Rd WS #06, Live Oak Rd WS #10, Live Oak Rd WS #14, Live

CWC worked with enrolled households to identify potential new enrollees, holding eight virtual community meetings in the Johnson, McGinnis, and Live Oak Road area, which is low-income and has potential for a long-term drinking water project.

Oak Rd WS #15, Maher Rd WS #11, Matsunami Labor Camp WS, McGinnis Rd WS #02, San Miguel WS #30, Sill Rd WS#03, and Tustin Rd WS #07.

**PROJECT: DISADVANTAGED COMMUNITY AND TRIBAL INVOLVEMENT
(DACTI) GRANT FOR THE CENTRAL COAST FUNDING AREA**

CONTACT: Regional Water Management Foundation
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In 2018, the Regional Water Management Foundation (RWMF) received a Proposition 1 Integrated Regional Water Management (IRWM) Disadvantaged Community and Tribal Involvement (DACTI) Grant for the Central Coast funding area in the amount of \$4,300,000. The Central Coast funding area includes the jurisdictional areas of the six IRWM programs in the Central Coast Region. The grant includes projects that benefit multiple IRWM regions including community needs assessments, outreach and education, technical assistance, project development, and construction projects to meet DAC water and wastewater needs. These activities provided a range of benefits including: 1) providing a better understanding of the water and wastewater needs and challenges faced by these communities; 2) an opportunity to identify and assess new needs; 3) advancing project development and readiness for implementation funds; 4) providing opportunities for local and regional capacity building; 5) increasing disadvantaged and underrepresented communities involvement in IRWM; 6) and ensuring these communities are aware of opportunities through IRWM.

Brief annual informational updates to the Central Coast Water Board have been provided since 2019. The following summary principally covers activity since 2021. The Needs Assessments in all six regions are completed, with the final reporting in the review stage. A Needs Assessment report for the Central Coast will be submitted to the Department of Water Resources in 2022. Initial work on the Needs Assessments focused principally on economically disadvantaged (EDA) and severely disadvantaged communities (SDAC). In 2021, in the Santa Cruz and the Greater Monterey County IRWM Regions, work expanded to include information gathering on the water and sanitation needs of community members experiencing homelessness. Peer-to-peer surveys were coordinated by social service organizations (Downtown Streets Team and Community Action Board) to gather responses for homelessness and unsheltered community members related to water and sanitation access. Meetings with local agency staff (water, public works, parks and recreation, environmental health, homeless services) and organizations provided information on water, sanitation and the impacts of encampments upon watershed health.

In May 2021, representatives from multiple Central Coast regions assisted in the planning and participated in the IRWM Summit, titled *Watershed Health and People Experiencing Homelessness: Spotlight on the Central Coast and Ventura Counties, Statewide Impact*. Due to COVID-19, the event occurred as a web conference (via Zoom) hosted by DUDEK in conjunction with multiple participating agencies. Spanish translation was provided. The summit brought together representatives working within these communities from the federal, state and local agencies to share their perspectives, challenges, opportunities, and to identify potential sources of funding to address the wide range of issues on this topic.

The Rural Community Assistance Corporation (RCAC) conducted educational activities in the Pajaro IRWM Region that included a workshop on the operation and maintenance of domestic water wells and septic systems. The Pajaro Regional Water Management Group (RWMG) and RCAC coordinated with the Central Coast Water Board, Valley Water, and the Community Water Center to provide resources for free domestic well testing programs and bottled water services during the webinar. RCAC also conducted water quality testing for private wells in the Greater Monterey County IRWM Region. Working in partnership with the Community Water Center, RCAC identified eight local private well owners willing to participate and conducted water quality sampling of those wells.

In the Santa Cruz region, the City of Watsonville led a bilingual (English-Spanish) community outreach and engagement project targeting water pollution prevention in local waterways. Funding provided to the San Lorenzo Valley Water District supported outreach to promote its Low-Income Rate Assistance program and the State's COVID-19 utility relief program.¹⁰ A water and sewer service assessment examined service affordability in Santa Cruz County was partially funded by the grant. The assessment is based on costs of service for six public water service providers, 11 sewer service providers, and households on septic systems in some areas. The findings show households in DAC block groups are much more likely to face water and sewer service affordability challenges than are households in non-DAC areas. However, the findings also indicate that water and sewer service affordability is not exclusively a DAC issue.

The Amah Mutsun Land Trust (AMLT) were engaged in 2021 with the support of a DWR CivicSpark intern to engage in IRWM groups in the Greater Monterey County, Pajaro River Watershed and Santa Cruz IRWM regions. Activities included identifying and connecting with key stakeholders, developing a list of funding opportunities and coordinating multiple field activities with the AMLT's Native Stewardship Corps and local agencies (Resource Conservation District Santa Cruz County, City of Watsonville) and organizations (Watsonville Wetlands Watch, Coastal Watershed Council, Land Trust Santa Cruz County) in the Pajaro and Santa Cruz IRWM Regions.

Project development activities concluded in five of the six IRWM regions. This work included project implementation and planning necessary for future implementation of important water projects for the public water systems that serve DACs. The project development advances project readiness for future implementation through the forthcoming IRWM Proposition 1 Implementation grants and/or other funding sources.

Examples of work that continued into 2021 in the IRWM Regions include:

Santa Cruz Region: The City of Watsonville in partnership with Watsonville Wetlands Watch implemented the Middle Struve Slough Water Quality and Habitat Improvement Project. The work resulted in construction-ready designs to implement surface water

¹⁰ https://housing.ca.gov/covid_rr/

quality improvement projects and watershed enhancements that provide additional benefits such as integrated flood management and improved public access. San Lorenzo Valley Water District completed a Water Master Plan that will help inform infrastructure improvements in DACs including fire flow requirements.

Pajaro River Watershed: The Pajaro Sunny Mesa Community Services District completed the installation of a new 600,000-gallon water supply storage tank.

Monterey Peninsula IRWM Region: The City of Monterey completed storm drain improvements along Franklin Street to reduce flooding potential and benefit stormwater runoff.

Greater Monterey County IRWM Region: Advancing two water supply projects to 30% design and one wastewater project to 60% design. The completion of a pre-design engineering sanitary sewer analysis; a water tank foundation technical investigation, and one project developed for application to the Drinking Water State Revolving Fund (DWSRF) and/or Safe and Affordable Funding for Equity and Resilience (SAFER). The remaining grant funded work includes a feasibility study at the Soledad Wastewater Treatment Facility and coordination of efforts to advance a sewer system consolidation for a farm worker housing complex in Soledad. These final projects will be completed by September 2022.

San Luis Obispo: Five planning and engineering projects in the San Luis Obispo region were completed.

Santa Barbara: The Santa Barbara County IRWM Region went beyond the categorization of the California Department of Water Resources (DWR) DAC umbrella and defined underrepresented communities as those whose voices have historically not been included or reflected in the larger societal dialogue and narrative; these communities are not just limited to an economically derived definition. In this context, underrepresented communities include Tribal/First Nations, recent immigrants, communities of color, youth, older adults, and other populations that are traditionally underserved or underrepresented. "Vulnerable communities" as defined by the Regional Water Management Group includes the temporarily unsheltered and chronically unsheltered communities.

Completing the Needs Assessment for the Santa Barbara County IRWM Region involved comprehensive research, surveys, and personal communication outreach throughout the region. Gathering data involved using publicly available information on populations, drinking water, wastewater, and stormwater to outline the basics of the Santa Barbara County IRWM Region Needs Assessment Table provided; however, not all of the information was available or current. Population, household count, and DAC and EDA status were gathered from DWR's mapping tools. Data and characterizations provided in the Santa Barbara IRWM Plan 2019 Update were also consulted in filling out community characteristics, involvement with local IRWM, and various water system

issues. Preliminary information on water supply treatment and wastewater systems was also extracted from the “Water Resources of Santa Barbara County” document provided by the Santa Barbara County Water Agency in 2000. Personal communication with staff members at water agencies and Community Service Districts (CSDs) over the phone, email, and at meetings resulted in clarification on numbers of working public wells, water supply treatment, and drinking water system issues for many of the listed locations. Through discussions with staff at various jurisdictions, non-governmental organizations (NGOs), CSDs, and the County of Santa Barbara (County), quantitative and qualitative data was collected that demonstrates the economic status and community structure of the DACs and severely disadvantaged communities (SDACs) in the Santa Barbara IRWM Region. This process included additional outreach and survey efforts to ensure that underserved communities are being heard. The Santa Barbara County IRWM worked directly with Local, State and Federal agencies in characterization of the water and sanitation needs of the unhoused populations as well and worked coordination with local NGOs to characterize and understand needs and outreach opportunities.

In an on-going manner that was established prior to the DACTI, the Santa Barbara IRWM conducts an annual assessment of the project and programmatic needs and opportunities in under-represented communities, and there are a number of under-represented community representatives that serve of the governance of on the Santa Barbara County IRWM (Regional Water Management Group/Cooperating Partners), including municipalities, NGOs and the Santa Ynez Chumash. The Santa Barbara IRWM works with underrepresented communities on identifying and securing funding for projects and programs and has formed a sub-committee to expand the IRWM program, involve non-traditional partners and generate more interest, create more include projects, serve more people and fund multi-benefit and representative watershed wide projects.

The IRWM worked with University of California at Santa Barbara, Department of Anthropology (UCSB) conducted a deep and thorough survey and needs assessment and ethnography of the Cuyama Valley, titled [Cuyama Water Census](#).¹¹

Five separate DACTI grant tasks were undertaken in the Santa Barbara IRWM Region. The other four are as follows: community outreach in the Cuyama Valley, IRWM engagement in the Cuyama Valley, Facilities Master Plan and Hydrogeologic Study for the Cuyama CSD, and City of Guadalupe Wastewater treatment system and sewer collection improvements. The Community Outreach and IRWM Engagement Tasks in the IRWM Valley were undertaken by Quail Springs. Because of the pandemic, they developed an innovative educational and outreach project that included the completion of educational and information materials in the Cuyama Valley, such as newsletters, an interactive website, and educational videos for K-12 students about water issues facing

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<https://walsh.anth.ucsb.edu/sites/default/files/sitefiles/WATER%20CENSUS%20FINAL%20REPORT%201.pdf>

the community and the painting of a water cycle mural of the Cuyama Valley on the community center (Figure 2).

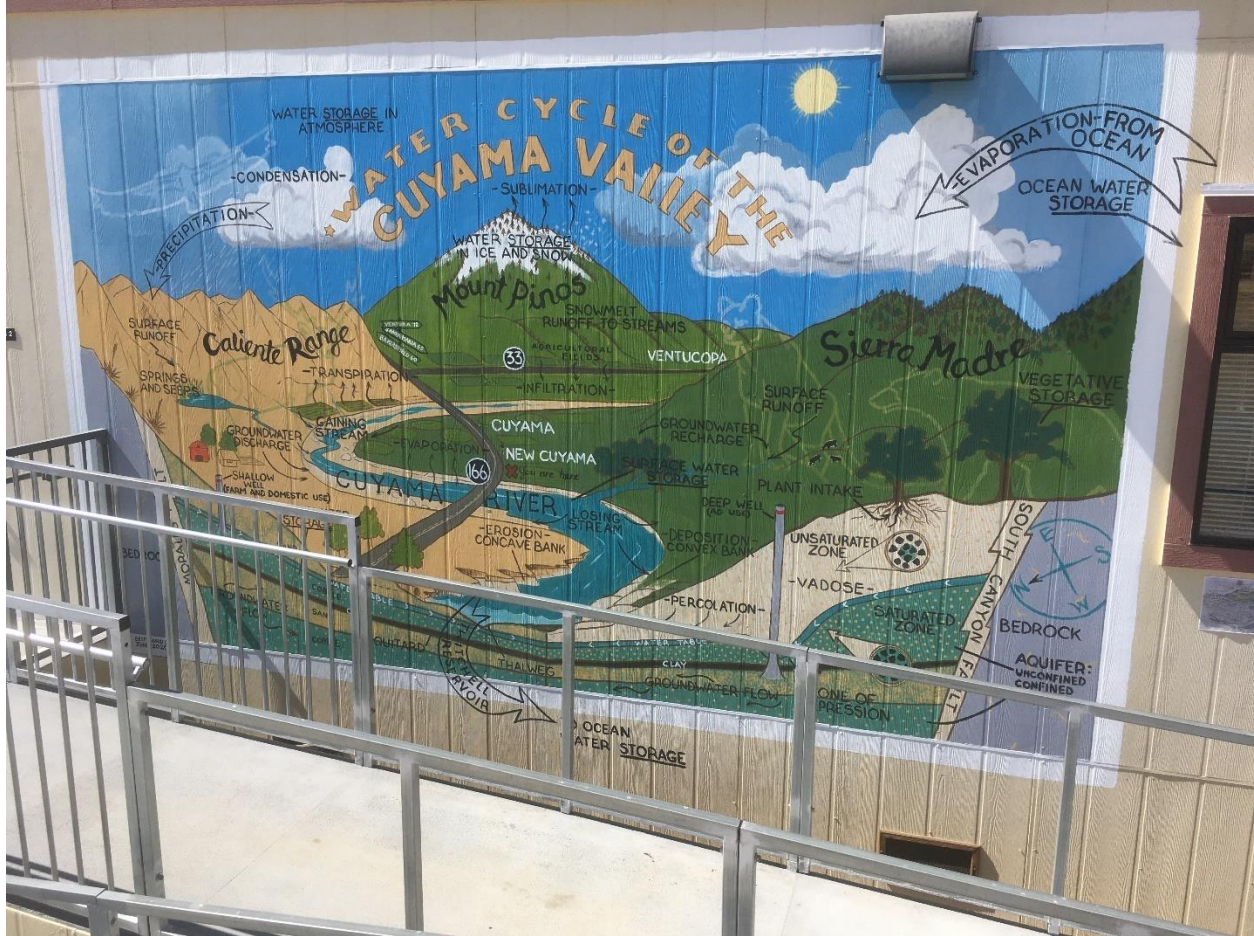


Figure 2. Community Center water cycle mural of the Cuyama Valley (Figure 2).