



CALIFORNIA WASTEWATER NEEDS ASSESSMENT (WWNA): BASELINE SURVEY

The California Wastewater Needs Assessment (WWNA) is a four-year project (2023-2027) to provide information on California's water-related sanitation system needs in communities served by both small and large wastewater systems. In the project's early phase, the team conducted a baseline survey of water-related sanitation issues to provide a rapid assessment that illustrates the scope of challenges faced by communities across the state.

Project Overview

Outreach to inform the rapid baseline was administered to experts from government agencies, technical assistance providers, private sector companies, journalists, academics, extension researchers, non-governmental organizations, and community advocates.

The survey was divided into three parts. First, a survey was developed to collect information on water-related sanitation issues, focusing on community-based perspectives and needs.

Second, a spatial database of communities with increased vulnerability to inadequate wastewater services was compiled to locate potential hotspots. The database includes locations of mobile home and recreational vehicle (RV) parks, farmworker housing, federal and state campgrounds, disadvantaged communities, and tribal communities.

Third, a field campaign will visit sites identified by the survey and surrounding areas to provide more context to survey results and document first-hand accounts of known issues.



Part 1. Survey

Administer a baseline survey to understand community-based needs for water-related sanitation access across the state as identified by experts and community leaders.



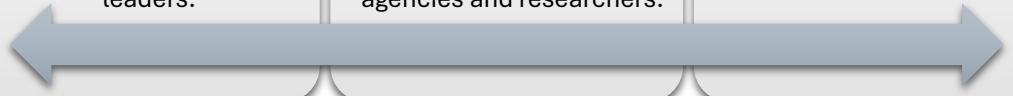
Part 2. Spatial Analysis

Create a spatial database with data on key types of communities and housing. Analyze the data for trends and clustering patterns, then publish the database for use by agencies and researchers.



Part 3. Field Campaign

Characterize on-the-ground issues of water-related sanitation through outreach by speaking with key actors and documenting stories. (In progress)



Part One. Survey Results

The survey was sent to 166 potential respondents from which we received 112 answers (response rate of 67%). Of the respondents, 71 offered information on specific communities where they know water-related sanitation issues exist. From these, 36% said that they know of these issues because "they live or work" in the communities, and 34% said they have a "professional relationship or responsibility to the community," all demonstrating that survey results largely draw from first-hand experiences.

Importantly, survey results refined definitions being used for two concepts:

"Water-related sanitation is the access to safe, functional, affordable, and dignified collection and disposal of wastewater from human uses (domestic and industrial); including adequate sanitation systems, practices, and wastewater treatment to protect public health and the environment."



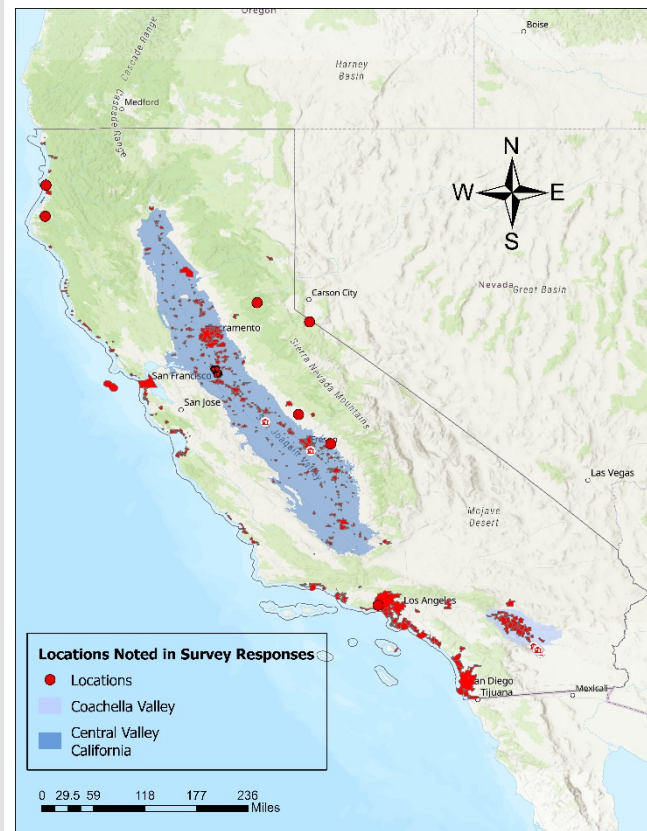
"Water-related sanitation equity is achieved when social, geographic, economic, cultural, and demographic attributes no longer predict people's access to or quality of water-related sanitation."

1. **Long-Lasting Issues.** Most respondents (79%) noted that they became aware of water-related sanitation issues over than 10 years ago.
2. **Housing Types.** Most water-related sanitation issues (44%) occur in family residences [single (32%) or multi-family (12%)], followed by RVs (15%) and mobile home parks (15%).
3. **Sociodemographic Factors.** Respondents indicated that water-related sanitation issues impact non-Hispanic white (34%), Latino (28%), and mixed (18%) communities.
4. **Communities.** Most respondents (84%) mentioned that water-related sanitation issues primarily occur in communities that meet statewide criteria as disadvantaged.
5. **Common Issues.** Respondents noted the most common water-related sanitation issue is reliance on septic systems (38%), no or intermittent water supply at home for water-related sanitation (13%), and reliance on mobile toilets (12%).
6. **Septic Systems.** Lack of maintenance (67%) is the most frequently reported cause of septic system issues
7. **Lack of Water Access.** Respondents indicated that some communities have “no or intermittent” water supply at home, especially in unhoused encampments.
8. **Mobile Toilets.** Respondents indicated that in the communities they know, mobile toilets are primarily used either “frequently at work” (33%) or “at all locations” (33%), suggesting these communities lack access to permanent toilets at least part of the time.
9. **Mismanagement.** Few respondents know of locations where raw sewage is spilling into water bodies or land. When reported, this occurred at private family residences (80%), and some respondents noted overflows inside buildings.
10. **No or Limited Access to Toilets.** Few respondents noted that they knew of places with no or limited toilet access for more than 10 years.
11. **No Indoor Sanitation Plumbing.** Respondents indicated that this issue is experienced primarily in communities facing homelessness and housing insecurity.
12. **Assistance.** The primary forms of assistance available to communities are technical (22%) and financial (21%). The most feasible solution is septic systems, but the issues remain unresolved due to a lack of resources.

Part Two. Geospatial Analysis Results

Six types of communities, housing categories, or land uses were identified with potentially higher vulnerability to inadequate sanitation services: Mobile home parks, farmworker housing, federal and state campgrounds, disadvantaged communities, and tribal disadvantaged communities. In total, we identified over 14,600 locations within these six categories (HDS, 2004; CalEPA, 2024; C DPR, 2024). This doesn't mean that all these places have water-related sanitation issues.

Communities noted in survey responses were mapped. Some responses were general (large areas or land use types), for example “all the communities in the San Joaquin Valley”, and others were specific locations.



As part three of this study, we will visit some of these places to know more about the community, their water sanitation problems and document stories.