



Wastewater Needs Assessment (WWNA)

August 2023

PURPOSE

This first-of-its-kind study focuses on achieving the Human Right to Water for all Californians and centers sanitation equity to inform the long-term efforts of the California Water Resources Control Board and the Regional Water Quality Control Boards (California Water Boards).

BACKGROUND

According to the Water Education Foundation, Californians generate roughly four billion gallons of wastewater each day. This study aims to understand how many of the state's 100,000 miles of sewer lines and more than 900 utility providers and treatment plants provide adequate and equitable service.

The California Water Boards awarded the UCLA Luskin Center for Innovation (LCI) and its partners \$4 million from now until 2027, to assess the needs of California's wastewater systems. Partners include the Office of Water Programs at California State University, Sacramento, the UC Agriculture and Natural Resources system, and the University of Massachusetts Amherst. The research agenda has two phases:

- Phase I, understanding baseline conditions of California's wastewater infrastructure and
- Phase II, identifying wastewater systems of concern and potential solutions.

SUMMARY

Phase I of the project focuses on convening interested parties to evaluate the baseline conditions of wastewater infrastructure services in California by:

- Identifying hotspots of wastewater systems of concern;
- Identifying data gaps and possible solutions;
- Identifying disadvantaged and severely disadvantaged communities' septic-sewer access needs;
- Identifying the broad challenges of sanitation needs for non-traditional communities, tribal sovereignties, and community-level climate change impacts;
- Defining and developing criteria for failing, inadequate, and at-risk systems; and
- Evaluating the costs to improve those systems.

In Phase II, researchers will publish tools to map wastewater systems of concern and potential solutions. The University of Massachusetts Amherst team will use new machine learning techniques to identify the locations of likely onsite wastewater treatment and disposal systems (most commonly septic systems) to help those communities address their wastewater concerns, assess challenges, and identify potential available funding sources. The broader research team will analyze system-wide needs and solution costs informed by the Phase I findings, and provide a long-term pathway for the provision of more equitable sanitation services in California.

Please reach out to wna@luskin.ucla.edu for any questions regarding the WWNA.