
State Water Resources Control Board

Overall Needs Analysis Conceptual Plan

(May 2019)

The State Water Resources Control Board (State Water Board) was [appropriated funding](#) to implement a Needs Analysis on the state of drinking water in California. Overall, this Needs Analysis will cover the three elements discussed below.

Element 1: Identification of Public Water Systems in Violation or At-Risk

Element 1 will identify public water systems¹ that have ongoing violations or may be at risk for failure based on historical compliance issues, aging infrastructure, technical, managerial, financial (TMF) capacity, and/or other risk factors. A public workshop on this element was held on January 11, 2019. Recordings and presentations from the event are available on the State Water Board's Needs Assessment [website](#).

Based on information obtained during the workshop and public comments received, the State Water Board is working to initiate a contract for this work. The contract work will include the work discussed below.

1. Identification of public water systems with on-going violations:

All water systems that are on the Human Right to Water list for violations, above any public health related action level, or with active waterborne disease will be identified for evaluation regardless of number of connections.

2. Identification of public water systems at risk of failure:

- I. An initial screening of risk for community water systems serving less than 3,300 connections and non-transient non-community water systems will be completed.² The screening criteria will be based on risk factor data available in State Water Board databases and reports, or available from other partnering agencies. Screening criteria may include historical waterborne disease, unplanned water outages, location in a high priority groundwater basin, single

¹ As defined in the Health and Safety Code. Note that public water systems may be publicly-or privately-owned.

² As defined in the Health and Safety Code Section 116275, e.g., schools that have their own water source & system.

sources, water sources requiring extensive treatment, absence of individual water meters, historical monitoring and reporting violations, bacteriological violations or historical evidence of *E. coli* in an active source, failure to have an appropriately certified operator, disadvantaged community status, and private organizations not in active standing with the California Secretary of State.

- II. In order to assess a community's ability to pay water rates that are adequate to maintain water system infrastructure for the long-term, a screening of affordability will be done for community water systems serving between 3,300 and 10,000 connections. The affordability screening will compare water rates to the community's income for mid-sized water systems that may not have adequate economies of scale to offset the low incomes of its residents.
- III. In order to track financial capacity risks into the future, publicly available financial capacity dashboards will be created for water systems in the range of 500 to 3,300 connections and including in-depth financial analysis of some smaller water systems identified through the risk analysis process. The financial capacity dashboard will be similar to those produced by the [University of North Carolina's Environmental Finance Center](#).

Element 2: Identification of Domestic Well and State Small Water System At-Risk

Element 2 will identify areas of the state and the associated population where groundwater contamination is impacting domestic well users and state small water systems. The State Water Board is also working in collaboration with the Department of Water Resources to support their efforts to identify and assess domestic well capacity and drought vulnerability issues. A public workshop on this element was held on January 18, 2019. Recordings and presentations from the event are available on the State Water Board's Needs Assessment [website](#).

Domestic Wells

Based on information obtained during the workshop and public comments received, the State Water Board anticipates collaborating with other partners on current research results, including the U.S. Geological Survey and the Department of Water Resources. Based on these collaborations, State Water Board staff will estimate the number of domestic wells impacted by the most widespread chemical contaminants that have been encountered. The results of these efforts will provide estimates of domestic wells impacted by chemical contamination. In addition, this work will include developing an estimate of potentially impacted domestic well populations located within approximately 1-mile of an existing public water system's service boundary.

State Small Water Systems

The Water Foundation is currently performing outreach to each California county to obtain inventory information, locational information, and water quality data on State Small Water Systems. Thanks to this effort and collaboration, the State Water Board intends to leverage these results to evaluate the status of water quality for state small water systems

and identify At-Risk state small water systems. Additional work will depend on the quality and availability of the data collected.

Element 3: Cost Analysis for Interim and Long-Term Solutions

This element seeks to find the most sustainable and cost-effective solution to solve drinking water problems identified in Elements 1 and 2. The analysis includes developing a methodology and costs related to both necessary interim measures and longer-term solutions for public water systems in violation and at-risk, and state small and domestic wells at-risk. Solutions may include water partnerships, physical and managerial consolidations, regional consolidations, use of administrators, long-term treatment, and/or point of use (POU)/point of entry (POE) treatment, etc. The analysis will also include prioritization of needs, an evaluation of available existing funding sources, an evaluation of communities' ability to pay for water system needs, and additional funding needed.