



# CALIFORNIA CAPACITY DEVELOPMENT STRATEGY FOR PUBLIC WATER SYSTEMS



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CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

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## INTRODUCTION & BACKGROUND

### FEDERAL SAFE DRINKING WATER ACT

The Capacity Development program was established as a key component of the 1996 Federal Safe Drinking Water Act (SDWA) Amendments. The Amendments were passed by Congress in part because of the significant problems small public water systems were having providing safe and reliable drinking water to their customers. The SDWA emphasizes prevention and assistance, both financial and technical, to resolve the problems. The Amendments have provided incentives (including funding) for each state to develop a Capacity Development program to assist public water systems in building technical, managerial, and financial capacity. The Capacity Development program provides a framework for states and water systems to work together to protect public health.

The SDWA allows the states the flexibility to develop their own strategy to meet the individual needs of the state. However, the SDWA requires that the strategy be developed with adequate input from identified stakeholders including the public. California's initial Capacity Development Strategy was adopted in 2000.<sup>1</sup> The Capacity Development Strategy has developed and evolved over time since then.

### 2022 REVISED CAPACITY DEVELOPMENT STRATEGY

Two key drivers that led to the revised Capacity Development Strategy:

1. After California adopted its Capacity Development Strategy in 2000, the State legislature established the Human Right to Water (HR2W) in statute (2012). This is now established in California Water Code Section 106.3, which recognizes that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” To advance the goals of the HR2W, California passed Senate Bill 200 (SB 200) in 2019, which enabled the State Water Board to establish the Safe and Affordable Funding for Equity and Resilience (SAFER) Program. SB 200 established a set of tools, funding sources, and regulatory authorities that the State Water Board harnesses through the SAFER Program to help struggling public water systems build capacity to sustainably and affordably provide safe drinking water.
2. In 2018, America's Water infrastructure Act amended the SDWA to require state Capacity Development Strategies to include:

A description of how the state will, as appropriate—(i) encourage development by public water systems of asset management plans that include best practices for asset management; and (ii) assist, including through the provision of technical assistance, public water systems in

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<sup>1</sup> [2020 Capacity Development Strategy](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/cd_strategy.pdf):

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/cd\\_strategy.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/cd_strategy.pdf)

training operators or other relevant and appropriate persons in implementing such asset management plans.

In 2022, the State Water Board hosted two public workshops to seek feedback and recommendations on the revised Capacity Development Strategy. Stakeholders helped identify barriers to capacity development and shaped the Strategy's core Elements. Many existing Elements have been revised to incorporate the activities implemented through the SAFER Program (see Element 2, "Identification & Prioritization of Existing Systems in Need of Improved TMF Capacity" and Element 3, "Supporting Direct Capacity Building").

The State Water Board solicited public feedback on how best to incorporate asset management into the revised Strategy through the development of Element 6. Stakeholders were given the opportunity to suggest data and metrics that could be collected in the future to better help the State identify asset management resource needs and better track the successful implementation of asset management strategies by public water systems over time.

The draft Capacity Development Strategies and accompanying workshop materials are available on the State Water Board's Capacity Development webpage.<sup>2</sup>

## DEFINITIONS

All public water systems should have the technical, managerial, and financial (TMF) capacity to plan for, achieve, and maintain long term compliance with drinking water standards, thereby ensuring the quality and adequacy of the water supply. These three areas of capacity are interrelated:

**Technical Capacity:** The ability of a public water system to effectively treat and deliver safe drinking water with appropriately certified operators that meets state and federal water quality standards.

**Managerial Capacity:** A public water system's ability to conduct its affairs in a manner enabling it to achieve and maintain compliance with the California SDWA requirements while maintaining best practices in accountability and interactions with customers and regulatory agencies.

**Financial Capacity:** A public water system's ability to generate sufficient revenue for current and future budget needs, maintain creditworthiness, and manage funds through budgeting, accounting and other methods of fiscal control.

## THE CHALLENGE

California has approximately 350 failing public water systems and approximately 450 at-risk public water systems. Based on the State Water Board's engagement with failing

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<sup>2</sup> [California State Water Resources Control Board, Capacity Development Webpage: https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/TMF.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.html)

water systems, it has become clear that TMF capacity limitations are a key driver towards a water system's inability to stay in compliance.

## GOALS

**Achieving the HR2W:** All water systems can provide consistently safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes to their customers.

- To protect public health by ensuring consistent compliance with drinking water standards.
- To enhance performance beyond compliance through measures that encourage efficiency, effectiveness, and high level of service.
- To promote continuous improvement through monitoring, assessment, and strategic planning.

## CAPACITY DEVELOPMENT TOOLS AND BARRIERS

### LEGISLATIVE TOOLS

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#### ASSEMBLY BILL 685

On September 12, 2012, Governor Edmund G. Brown Jr. signed Assembly Bill (AB 685), making California the first state in the nation to legislatively recognize the human right to water. Now in the Water Code as Section 106.3, the State statutorily recognizes that: "... every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."

The Human Right to Water extends to all Californians, including disadvantaged individuals and groups and communities in rural and urban areas. Further, the bill required state agencies to consider this policy "when revising, adopting, or establishing policies, regulations, and grant criteria."

On February 16, 2016, the State Water Board adopted a resolution identifying the Human Right to Water statute as a top priority and core value of the State Water Board and Regional Water Quality Control Boards (collectively the 'Water Boards'). The resolution stated the Water Boards will work "to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations."

The resolution cements the Water Boards commitment to considering how its activities impact and advance the human right to safe, clean, affordable, and accessible water to support basic human needs. The Human Right to Water statute will be considered in actions taken by the Water Boards that pertain to the sustainability of drinking water.

These actions may include revising or establishing water quality control plans, policies, and grant criteria; permitting; site remediation and monitoring; and water right administration.

Under the resolution, State Water Boards staff will work with relevant stakeholders, as resources allow, to develop new systems or enhance existing systems to collect data and identify and track communities that do not have, or are at risk of not having, safe, clean, affordable, and accessible water for drinking, cooking, and sanitary purposes. State Water Boards staff will also work with relevant groups to develop performance measures to evaluate the Water Boards' progress toward making the human right to water a reality, and such information will be made available to the public.

The State Water Board has developed and will continue to enhance a set of criteria used to identify "failing" public water systems that are failing to meet the goals of the Human Right to Water.

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### **SENATE BILL 88**

In 2015, Senate Bill 88 (SB 88) authorized the State Water Board to require water systems serving disadvantaged communities that consistently fail to provide safe drinking water to consolidate with, or receive an extension of service from, another public water system. The consolidation can be physical or managerial. Although for many years the State Water Board has encouraged -- and will continue to encourage -- voluntary consolidations of public water systems, the legislation allows the State Water Board to mandate consolidation of water systems where appropriate. Extension of service to domestic wells is authorized only when agreed to by the well owner. The changes to the California Health and Safety Code, as defined in SB 88, gives the State Water Board authority to mandate such consolidations or extension of service only following a series of specific actions.

The State Water Board's Division of Drinking Water must issue letters to water systems to consolidate with, or seek an extension of service, from a public water system. The recipients of such letters have up to six months from the date the letter is issued to voluntarily consolidate with, or receive extension of service from, a public water system. All letters to public water systems, consolidation orders, petitions, responses, and administrative indices are available to the public upon request and at least two public meetings are required to ensure community engagement and transparency.

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### **SENATE BILL 1263**

In 2016, Senate Bill 1263 (SB 1263) required a person submitting an application for a permit for a proposed new public water system to first submit a preliminary technical report to the State Water Board at least six months before initiating construction of any water-related improvement. It is the policy of the state to discourage the establishment of new, unsustainable public water systems when there is a feasible alternative. The purpose of the preliminary technical report is to ensure the sustainability of new water

systems and evaluate alternatives prior to developers investing capital into new water systems.

The bill also prohibits a local primacy agency (LPA) from issuing a permit to operate a public water system without the agreement of the State Water Board. The proposed new public water system that would be regulated by the LPA, must also submit a copy of the preliminary technical report to the State Water Board. Furthermore, the bill prohibits a city, including a charter city, or a county from issuing a building permit for the construction of a new residential development where a source of the water supply is water transported by a water hauler, bottled water, a water-vending machine, or a retail water facility.

*The preliminary technical report shall include all of the following:*

1. The name of each community water system within three miles of applicant's proposed public water system's service area.
2. Discussion of the feasibility of each of the identified adjacent community water system annexing, connecting, or otherwise supplying domestic water to the proposed new public water system.
3. Discussion of all actions taken to secure a supply of domestic water from an existing community water system.
4. All sources of domestic water supply for the proposed new public water system.
5. Estimated costs to construct, operate and maintain new public water system, including long-term operation and maintenance (O&M) costs and a potential rate structure.
6. Cost comparison of the costs associated with the construction, O&M, and long-term sustainability of the proposed new public water system to the costs associated with receiving water through annexation by, consolidation with, or connection to an existing community water system.
7. Discussion of all actions taken by the applicant to pursue a contract for managerial or operational oversight from an existing community water system.
8. Analysis of whether a proposed new public water system's total projected water supplies available during normal, single dry, or multiple dry water years during a 20-year projection will meet the projected water demand for the service area.
9. Any information provided by the local agency formation commission (LAFCo).  
Applicant shall consult LAFCo if any adjacent public water systems are identified.

The requirements in SB 1263 do not apply to a service area where an applicant certifies in writing to the State Water Board that the applicant will not rely on the establishment of a new public water system for its water supply.

This bill and subsequent amended California Health and Safety Code Section 116540 by adding subsections (c) and (d), which require the State Water Board to consider future climate change and possible contamination impacts on new water systems and authorized the State Water Board to deny the permit of a proposed public water system if it determines that it is feasible for the service area of the proposed public water system to be served by an existing water system, respectively.



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## **SENATE BILL 552**

On September 28, 2016, the Governor signed Senate Bill 552 (SB 552) which expanded the mandatory consolidation authorities in SB 88 allowing the State Water Board to order a consolidation where a public water system or state small water system is serving, rather than within, a disadvantaged community and limits the authority to order a consolidation or extension of service to only disadvantaged communities. Mobile home parks (MHPs) are included for these purposes as a disadvantage community, even if it is not an unincorporated area or served by a mutual water company. The consolidation cannot result in increasing charges on existing customers of the receiving water system solely as a consequence of the consolidation or extension of service unless the customer receives a corresponding benefit. The following actions must be taken before ordering a consolidation or extension of service:

1. Consult with specified entities.
2. Hold at least one initial public meeting (unless the potentially subsumed area is only served by domestic wells).
3. Obtain written consent from any domestic well owner. If any effected resident within the service does not provide written consent, they are ineligible for any future water-related grant funding from the state.

Additionally, upon ordering the consolidation or extension of service, owners of a privately owned subsumed water system must be adequately compensated for the fair market value of the system as determined by the California Public Utilities Commission.

SB 552 also authorizes the State Water Board to contract with an administrator to provide administrative and managerial services to a designated water system and to order the designated public water system to accept those services if sufficient funding is available and certain findings are made. Public notice and a public meeting are required as part of determining that a public water system should receive an administrator. This bill authorizes the administrator of a designated public water system to spend available money on capital infrastructure improvements needed to provide an adequate and affordable supply of safe drinking water, to set and collect user water rates and fees, and to spend money for operations and maintenance. The goal of an administrator is to develop, within the shortest feasible timeframe, adequate technical, managerial, and financial capacity to deliver safe drinking water so that the administrator is no longer necessary.

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## **ASSEMBLY BILL 2501**

On September 28, 2018, the Governor signed Assembly Bill 2501 (AB 2501) which expands the State Water Board's authority to require consolidation of public and state small drinking water systems and individual wells that serve disadvantaged communities which consistently fail to deliver safe drinking water. The bill also authorizes the appointment of administrators to provide administrative and managerial services to struggling water systems that fail to deliver an adequate and affordable supply of safe drinking water, particularly if consolidation is not a viable option. It also

requires the State Water Board to develop standards, terms, and procedures for the management of the designated water system by the administrator.

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## **SENATE BILL 200**

On July 24, 2019, the Governor signed Senate Bill 200 (SB 200) establishing the Safe and Affordable Drinking Water Fund in the California State Treasury to help water systems provide an adequate, affordable supply of safe drinking water in the near and long terms. SB 200 provide funding until 2030 to improve the water quality of disadvantaged communities that lack clean water.

In the first year, \$100 million of the funding came from the Greenhouse Gas Reduction Fund (GGRF) and \$30 million from the General Fund under the Budget Act. After the first year, SB 200 provides the funding will be 5% of the GGRF, continuously appropriated but capped at \$130 million per year.

The funding and authorities granted to the State Water Board through SB 200 enabled the establishment of the Safe and Affordable Funding for Equity and Resilience (SAFER) Program. The State Water Board prioritizes SAFER Program funding and technical assistance annually through the Fund Expenditure Plan (FEP). The annual FEP is to be informed by “data and analysis drawn from the drinking water Needs Assessment”, per California Health and Safety Code section 116769. The State Water Board’s Drinking Water Needs Assessment (Needs Assessment) consists of three core components: the Risk Assessment, Cost Assessment, and Affordability Assessment.

SB 200 updated Section 116530, subdivision (a)<sup>3</sup> of California’s Health and Safety Code allowing for the State Water Board to request information regarding technical, managerial, and financial capacity for existing public water systems. California Health and Safety Code Section 116530 now states:

- (a) A public water system shall submit a technical report to the state board as part of the permit application or when otherwise required by the state board. This report may include, but not be limited to, detailed plans and specifications, water quality information, physical descriptions of the existing or proposed system, information related to technical, managerial, and financial capacity and sustainability, and information related to achieving the goals of Section 106.3 of the Water Code, including affordability and accessibility.

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## **SENATE BILL 403**

On September 23, 2021, the California legislature passed Senate Bill 403 (SB 403) authorizing the state board to also order consolidation where a water system serving a disadvantaged community is an at-risk water system, as defined, or where a disadvantaged community is substantially reliant on at-risk domestic wells. “At-risk

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<sup>3</sup> [California Health and Safety Code Section 116530\(a\)](#)

[https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=HSC&sectionNum=116530](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=116530)

water system” is defined in the bill to mean a water system that meets all the following conditions:

- (1) The water system is either a public water system with 3,300 or fewer connections or a state small water system.
- (2) The system serves a disadvantaged community.
- (3) The system is at risk of consistently failing to provide an adequate supply of safe drinking water, as determined by the state board pursuant to the methodology established in the 2021 Drinking Water Needs Assessment referenced in subdivision (b) of Section 116769, or a substantially similar methodology adopted by the state board in an update to the Drinking Water Needs Assessment.

“At-risk domestic well” is defined as “domestic wells that serve a disadvantaged community and are at risk of consistently failing to provide an adequate supply of safe drinking water as determined by the state board pursuant to the methodology established in the 2021 Drinking Water Needs Assessment referenced in subdivision (b) of Section 116769, or a substantially similar methodology adopted by the state board in an update to the Drinking Water Needs Assessment.”

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## **SENATE BILL 552**

On September 23, 2021, the California legislature passed Senate Bill 55249 (SB 552) to support planning and implementation of drought resiliency measures by counties and small water systems. SB 552 has four main resiliency areas:

- Implementation of water shortage contingency plans for small community water systems and K-12 schools that are non-community water systems,
- Infrastructural resiliency implementation for small community water systems and K-12 schools that are non-community water systems,
- County planning requirements for domestic wells and state small water systems, and
- State Water Board and California Department of Water Resource tool development and coordination activities.

Under the infrastructure resiliency implementation, SB 552 specifically requires small water suppliers, defined as community water systems serving 15 to 2,999 service connections and non-transient, non-community water systems that are K-12 schools, to implement the following drought resiliency measures, subject to funding availability:

- No later than January 1, 2023, implement monitoring systems sufficient to detect production well groundwater levels.
- Beginning no later than January 1, 2023, maintain membership in the California Water/Wastewater Agency Response Network (CalWARN) or similar mutual aid organization.
- No later than January 1, 2024, to ensure continuous operations during power failures, provide adequate backup electrical supply.

- No later than January 1, 2027, have at least one backup source of water supply, or a water system intertie, that meets current water quality requirements and is sufficient to meet average daily demand.
- No later than January 1, 2032, meter each service connection and monitor for water loss due to leakages.
- No later than January 1, 2032, have source system capacity, treatment system capacity if necessary, and distribution system capacity to meet fire flow requirements.

## BOARD RESOLUTIONS

The State Water Board has adopted resolutions that help guide program development and implementation. Board resolutions do not have the same binding effect as statutes or administrative regulations; however, they do serve as an important precedent for State Water Board activities. The following resolutions summarized below are of particular importance for the Capacity Development Strategy. They help shape the values and guiding principles behind the Strategy's core Elements.

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### RACIAL EQUITY RESOLUTION

On August 18, 2020, the State Water Board publicly acknowledged that the historical effects of institutional racism must be confronted throughout government, and it directed staff to develop a priority plan of action. The Water Boards Racial Equity Team held public and employee listening sessions to help develop a draft resolution. After a public comment period on the draft resolution in spring 2021, the Racial Equity Team made significant updates to the resolution. On November 16, 2021, the State Water Board adopted Resolution No. 2021-0050,<sup>4</sup> "Condemning Racism, Xenophobia, Bigotry, and Racial Injustice and Strengthening Commitment to Racial Equity, Diversity, Inclusion, Access, and Anti-Racism" which affirms the State Water Board's commitment to racial equity in its policies, programs, and service to communities. It also directs staff to undertake a variety of actions to achieve racial equity throughout all Water Boards programs and activities. Primary among these actions is the implementation of a Racial Equity Action Plan, which the Racial Equity Team is in the process of developing.<sup>5</sup>

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### CLIMATE CHANGE RESOLUTION

The Water Boards strive to protect the many beneficial uses of California waters and ensure a sustainable water supply for all Californians. Current and future climate change effects—such as more frequent wildfires, floods, and droughts—threaten California's water supply and exacerbate challenges like groundwater management and

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<sup>4</sup> [Racial Equity Resolution](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2021/rs2021_0050.pdf)

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2021/rs2021\\_0050.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2021/rs2021_0050.pdf)

<sup>5</sup> [Racial Equity Action Plan \(under development\)](https://www.waterboards.ca.gov/racial_equity/resolution-and-actions.html)

[https://www.waterboards.ca.gov/racial\\_equity/resolution-and-actions.html](https://www.waterboards.ca.gov/racial_equity/resolution-and-actions.html)

access to safe and affordable drinking water. The Water Boards promote water measures that reduce the emission of greenhouse gases and help Californians adapt to the impacts of climate change primarily through permits, regulations, and financing.

On March 7, 2017, the State Water Resources Control Board adopted a resolution<sup>6</sup> requiring a proactive approach to climate change in all Board actions, including drinking water regulation, water quality protection, and financial assistance. This action builds on a resolution<sup>7</sup> adopted by the Board in 2007, which set forth initial actions it should take to respond to climate change and support the implementation of Assembly Bill (AB) 32,<sup>8</sup> the landmark climate change law that was adopted in 2006.

The directives called for in the resolution include tracking and reporting on actions to reduce greenhouse gases, coordination with internal and external stakeholders to account for climate change, and development of recommendations for specific, enforceable actions over time. The resolution requires State Water Board staff to use current models and data to inform Board actions. State regulators can no longer rely solely on historical data to guide decisions under climate change. To increase regulatory consistency, the resolution also requires staff to use climate change policy guidance from other agencies.

## BARRIERS

### LIMITED REGULATORY REQUIREMENTS

In California statutes, there are few references to TMF capacity expectations. Subsection g of section 116375 of the Health and Safety Code allows DDW to set by regulation the minimum acceptable financial assurances that a public water system must submit as a demonstration of its capability to provide for ongoing operation, maintenance, and upgrading of the system, including compliance with monitoring and treatment requirements and contingencies; however, no regulations have been adopted. California's Health and Safety Code Section 116540<sup>9</sup> does state that TMF requirements may be added to permits; however, because there are no regulations setting general TMF requirements for public water systems, any permit requirements would need to be specific to an individual water system to prevent creating underground regulations.

At present, there are no specific requirements for TMF capacity for water systems in California regulations, although guidelines do exist in industry standards and regulations

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<sup>6</sup> [2017 Response to Climate Change Resolution](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/rs2017_0012.pdf)

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2017/rs2017\\_0012.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/rs2017_0012.pdf)

<sup>7</sup> [2007 Climate Change Resolution](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2007/rs2007_0059.pdf)

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2007/rs2007\\_0059.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2007/rs2007_0059.pdf)

<sup>8</sup> [Assembly Bill 32](http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf)

[http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab\\_0001-0050/ab\\_32\\_bill\\_20060927\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf)

<sup>9</sup> [California Health and Safety Code Section 116540](https://codes.findlaw.com/ca/health-and-safety-code/hsc-sect-116540.html)

<https://codes.findlaw.com/ca/health-and-safety-code/hsc-sect-116540.html>

in other States. Industry standards and regulations in other states missing in California include:

**Limitations on contract water treatment operators**

Contract operators with too many water systems offer only the minimum monitoring to keep a system in compliance and in some cases take on upwards of 60 to 70 systems. This leads to poor operational control, and no maintenance being performed such as flushing to prevent colored water events.

**Adequate training and transparency for governing boards**

Board members of mutual water systems are required to have minimal training regarding the duties of board members, including avoiding conflict of interest, the duties of public water systems to provide drinking water that complies with the federal and state Safe Drinking Water Acts, and long-term management of a public water system. There is no such training required for government organized or privately-owned systems. Governing boards need training on system finances. Furthermore, there is no enforcement mechanism within the Safe Drinking Water Act if the mutual water system board members do not comply with the training requirements.

**Asset management evaluation requirements**

The distribution piping, source wells, and treatment equipment in many systems are nearing or at the end of their useful life. While technical assistance can be provided to support efforts to upgrade equipment, a regulatory framework that set out clear, specific requirements for ensuring equipment was evaluated and replaced on a set schedule would support consistency in expectations for all water systems.

**Preparation and implementation of Capital Improvement Plans (CIP)**

Many systems do not have replacement plans for their equipment and operate to failure, which then creates a crisis and hurried replacement.

**Assessment of revenue projections, revenue requirements, & cost allocation**

Many systems do not formally and publicly plan their budgets. Additionally, the State Water Board has no regulatory authority defining what level of financial capacity is acceptable or unacceptable.

**Clarifying reserve and debt management requirements**

California does not have reserve requirements so systems may operate without any reserve, and instead use debt when needed, at increased cost to users.

**Adequate revenues to meet CIP needs and other reserves**

Very few disadvantaged community systems set revenues high enough to fund future facilities needs that are necessary to maintain water quality and quantity standards.

### **Uniform accounting and reporting requirements to the State Water Board**

The State Water Board collects some data to assess TMF capacity of water systems through the Electronic Annual Report. However additional information is needed, for example, water systems are not required to submit data on asset inventories, asset conditions, and general information on the implementation of asset management plans.

### **Standardized thresholds indicating distress across all water system types, including municipal, investor-owned, private and non-community**

Due to the lack of centralized reports or standards, financial health of water systems across the different governing types is not consistently performed.

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## **INSUFFICIENT DATA & LIMITED DATA SYSTEMS**

The State Water Board's primary violation, enforcement and regulatory tracking database, Safe Drinking Water Information Systems (SDWIS), was designed for reporting compliance to the U.S. EPA for national tracking purposes. The database was not designed for the type of complex risk assessments being done in California or tailored to California's specific water quality regulations or drought-monitoring needs. SDWIS is limited in its ability to store TMF data and currently does not separate out other key system-level data components, such as source capacity enforcement actions, boil water notices, how water system connections are utilized, water quality trends, asset inventory or condition information etc.

Several efforts to augment this data collection and management have been made by the State Water Board through project-specific efforts, such as the Modified Drinking Water Watch, the Electronic Annual Report and the creation of the SAFER Clearinghouse. The ideal solution would likely entail the creation of a comprehensive data management system to fully support the transparent and data driven work required to implement the Capacity Development Strategy.

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## **COORDINATION AMONGST STATE AND FEDERAL AGENCIES**

Lack of timely coordination between the State Water Board and other State and Federal agencies can result in missed opportunities for advancing public water system capacity development. The State Water Board has partnered closely with the Department of Water Resources, the California Public Utilities Commission, the Office of Environment Health Hazard Assessment, the Department of Housing and Community Development, the U.S. Environmental Protection Agency, and many others to foster better relationships and identify areas where better coordination can result in improved outcomes for public water systems and communities. Work will continue in order to enhance data and information sharing across agencies to improve coordination, better decision-making, and reduce redundant data reporting needs.

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## LOCAL BARRIERS

The State Water Board used a series of workshops to identify local barriers to TMF capacity development. Identified barriers include:

- Workforce development limitations
- Difficulty raising rates
- Board member education and lack of participation
- Lack of public participation in water system governance or decision-making
- Lack of management and/or technical experience
- Inadequate infrastructure
- Difficulty tracking state and federal regulatory requirements
- Inadequate financial capacity and financial accountability

## TMF CAPACITY DEVELOPMENT STRATEGIC ELEMENTS

The following section provides an overview of the State Water Board's Capacity Development Strategy's core elements.

- 1) Ensuring new public water systems have TMF capacity.
- 2) Identification and prioritization of existing systems in need of improved TMF capacity.
- 3) Supporting direct capacity building.
- 4) Supporting capacity building work of third-party organizations.
- 5) Ensuring TMF capacity of State funding and financing recipients.
- 6) Promoting asset management.
- 7) Building Capacity Through Complete and Accurate Data Gathering and Reporting.
- 8) Measuring TMF capacity building success.

### ELEMENT 1: ENSURING NEW PUBLIC WATER SYSTEMS HAVE TMF CAPACITY

The State Water Board has implemented elements of the TMF capacity development program since January 1, 1998. On that date, State regulations became effective requiring that all new public water systems and systems changing ownership demonstrate adequate TMF capacity to obtain a water supply permit

Section 116540 of the Health and Safety Code (CHSC) states:

No public water system that was not in existence on January 1, 1998, shall be granted a permit unless the system demonstrates to the department that the water supplier possesses adequate financial, managerial, and technical capability to assure the delivery of pure, wholesome, and potable drinking water. This section shall also apply to any change of ownership of a public water system that occurs after January 1, 1998.



Furthermore, SB 1263 requires applications for new public water system permits to demonstrate that the new water systems can provide affordable, safe drinking water in the reasonably foreseeable future. Applicants are required to submit a preliminary technical report that provides an analysis of the possibility to connecting to a nearby water system, a cost comparison associated with the construction of a new system vs. connected with an existing system, etc. Preliminary technical report guidance is located on our website.<sup>10</sup>

## **ELEMENT 2: IDENTIFICATION & PRIORITIZATION OF EXISTING SYSTEMS IN NEED OF IMPROVED TMF CAPACITY**

The State Water Board utilizes its regulatory authorities and appropriate data to identify water systems that are failing, or at-risk of failing, to meet the goals of the HR2W. The State Water Board has publicly defined criteria that is developed and enhanced through a stakeholder driven process to identify these systems. SB 200 requires the State Water Board to use this information as part of its funding prioritization process for the Safe and Affordable Drinking Water Fund. (Health & Saf. Code, § 116769.)

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### **ANNUAL DRINKING WATER NEEDS ASSESSMENT**

In 2019, to advance the goals of the HR2W, California passed SB 200, which enabled the State Water Board to establish the SAFER program. SB 200 established a set of tools, funding sources, and regulatory authorities that the State Water Board harnesses through the SAFER program to identify and help struggling water systems sustainably and affordably provide safe drinking water.

The annual Drinking Water Needs Assessment (Needs Assessment), required to be carried out by the SAFER program, provides foundational information and recommendations to guide this work.<sup>11</sup> The Needs Assessment goes beyond the federal requirements of identifying systems in need of improved TMF capacity, by identifying and prioritizing public water systems, state small water systems, and domestic wells for the SAFER program.

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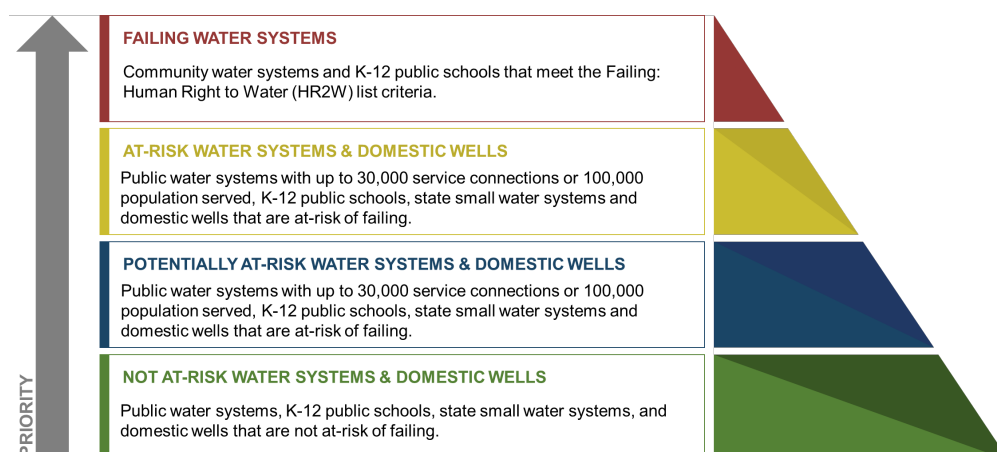
<sup>10</sup> [Preliminary Technical Report Guidance](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/permits/ptr_guidance_aug2021.pdf)

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/permits/ptr\\_guidance\\_aug2021.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/permits/ptr_guidance_aug2021.pdf)

<sup>11</sup> [Drinking Water Needs Assessment](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs)

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/needs](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs)

**Figure 1: SAFER Program Priority Systems**



The methodologies utilized in the Needs Assessment to identify water systems and communities were developed, and continue to be enhanced, through a robust internal and external stakeholder engagement process. The State Water Board fully documents the development and implementation of the Needs Assessment, all of which are detailed in a publicly available white papers, reports, webinar recording, etc. on the State Water Board’s Needs Assessment website.<sup>12</sup>

## FAILING SYSTEMS

Approximately 850,000 Californians still do not have access to safe, affordable drinking water.<sup>13</sup> California is the first state to do an in-depth study of this issue. It follows California’s leadership in adopting the first Human Right to Water policy in the nation. The State Water Board assesses water systems that fail to meet the goals of the Human Right to Water and maintains a list and map of these systems on its website. Systems that are on the Failing: Human Right to Water list (Failing: HR2W list) are those that are out of compliance or consistently fail to meet primary and secondary drinking water standards, have treatment technique violations, and extensive monitoring and reporting violations. Systems that are assessed for meeting the HR2W list criteria include Community Water Systems (CWSs) and Non-Community Water Systems (NCWSs) that serve schools and daycares. Failing: HR2W list criteria is fully documented and updated when appropriate on the State Water Board’s HR2W list webpage.<sup>14</sup> The State Water Board works with stakeholders to routinely review the Failing: HR2W criteria and update it when appropriate to fully capture systems failing to provide safe and accessible drinking water.

<sup>12</sup> [Drinking Water Needs Assessment](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs)

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/needs](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs)

<sup>13</sup> As of 11.04.2022 Failing list of 386 public water systems.

<sup>14</sup> [State Water Board Failing: Human Right to Water Webpage](https://www.waterboards.ca.gov/water_issues/programs/hr2w/)

[https://www.waterboards.ca.gov/water\\_issues/programs/hr2w/](https://www.waterboards.ca.gov/water_issues/programs/hr2w/)

## AT-RISK SYSTEMS

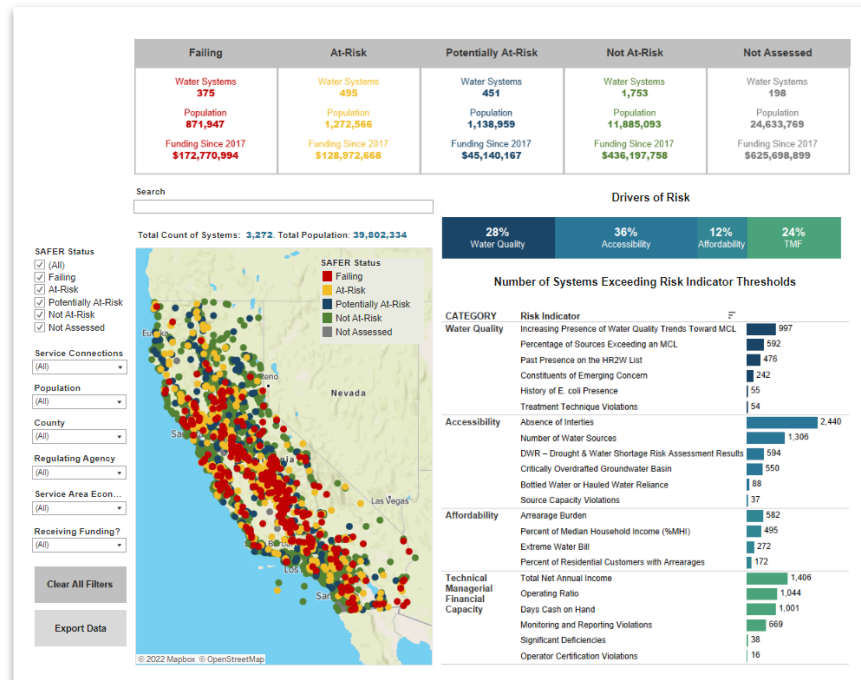
SB 200 calls for the identification of “public water systems, community water systems, and state small water systems that may be at risk of failing to provide an adequate supply of safe drinking water.” As well as “an estimate of the number of households that are served by domestic wells or state small water systems in high-risk areas.” Therefore, different Risk Assessment methodologies have been developed for different system types: public water systems, state small water systems, and domestic wells.

The State Water Board utilizes a set of risk indicators, developed through a stakeholder-driven process, to identify at-risk water systems. Risk indicators are organized into four different categories:

- Water Quality
- Accessibility
- Affordability
- TMF Capacity

Water system performance across all four risk categories within the Risk Assessment, helps the State Water Board and communities identify current capacity and operational risks that need to be addressed. Water system performance in the Risk Assessment is publicly available in an interactive SAFER Dashboard.<sup>15</sup>

**Figure 2: SAFER Dashboard**



<sup>15</sup> [SAFER Dashboard of Failing and At-Risk Public Water Systems](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/2022.html)  
[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/2022.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/2022.html)

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## COST ASSESSMENT

SB 200 directs the State Water Board to prepare an “estimate of the funding needed for the next fiscal year based on the amount available in the fund, anticipated funding needs, other existing funding sources, and other relevant data and information.” (Health & Saf. Code, § 116769, subd. (a)(5).) Thus, the Cost Assessment estimates the costs related to the implementation of interim and/or emergency measures and longer-term solutions for Failing: HR2W list and At-Risk systems. The Cost Assessment model includes costs for not only the technical needs of implementing these solutions, but also costs associated with the long-term operations of these solutions as well.

The Cost Assessment results are utilized by the State Water Board to inform the broader demands of the SAFER program as well as the annual funding needs. The embedded assumptions and cost estimates detailed in the Needs Assessment are not intended to be used to inform site-specific decisions but rather give an informative analysis on a statewide basis. Local solutions and actual costs will vary from system to system and will depend on site-specific details.

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## AFFORDABILITY ASSESSMENT

SB 200 calls for the identification of “any community water system that serves a disadvantaged community that must charge fees that exceed the affordability threshold established by the board in order to supply, treat, and distribute potable water that complies with federal and state drinking water standards.” (Health & Saf. Code, § 116769, subd. (a)(2)(B).) The Affordability Assessment evaluates several different stakeholder-developed affordability indicators to identify communities that may be experiencing affordability challenges. Legislation does not define what the Affordability Threshold should be. Nor is there specific guidance on the perspective in which the State Water Board should be assessing the Affordability Threshold. The figure below illustrates the nexus of affordability definitions that exist and why household and community affordability are important to understand when assessing a water system’s financial capacity.

**Figure 3: Nexus of Affordability Definitions**



- (1) **Household Affordability:** The ability of individual households to pay for an adequate supply of water.
- (2) **Community Affordability:** The ability of households within a community to pay for water services to financially support a resilient water system.
- (3) & (4) **Water System Financial Capacity:** The ability of the water system to financially meet current and future operations and infrastructure needs to deliver safe drinking water. The financial capacity of water systems affects future rate impacts on households.

The results of the Affordability Assessment are displayed in the SAFER Dashboard and are used to inform the prioritization of SAFER program activities as well as funding and technical assistance. The results assist the State Water Board and the public in identifying water systems that may be experiencing financial capacity constraints due to affordability challenges.

### **ELEMENT 3: SUPPORTING DIRECT CAPACITY BUILDING**

This includes work that the State Water Board staff conducts as part of the SAFER program and its core regulatory program. The following are areas where the State Water Board supports direct capacity building by drawing public water systems' attention to problems and providing support to help address them.

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### **SAFER ENGAGEMENT**

With the creation of the SAFER program, the State Water Board has staff dedicated to assisting communities with failing or at-risk water systems in overcoming their challenges. This work includes the following elements:

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### **WATER SYSTEM PARTNERSHIPS & CONSOLIDATION**

Small water systems often are less resilient to natural disasters, such as drought and fire, have more difficulty adjusting to regulatory changes, and struggle to fund infrastructure maintenance and replacement due to poor economies of scale and lack of staff. As a result, the State Water Board supports consolidations and water partnerships. This support includes financial aid from the SAFER funds to help pay for consolidations of small water systems wherever feasible, and consolidation incentives for larger water systems agreeing to take in small water systems. Large water systems typically only qualify for low-interest DWSRF loans; however, the State Water Board

offers grants as well as zero interest loans if a large water system is participating in a consolidation project.<sup>16</sup>

The State Water Board recognizes that consolidations typically require community engagement, water system governance changes, and complex engineering, and agreements between multiple parties. The State Water Board's staff assist in initiating discussions between parties, outreaching to other agencies with jurisdiction and helping to conceptually design possible consolidation alternatives. Planning grants or technical assistance are available to help complete consolidation planning work at no cost to the larger water system. The State Water Board continues to explore opportunities to expand consolidation incentives and expedite consolidation funding.

The State Water Board utilizes its growing toolkit of legislative authorities, internal and external expertise, and web-based resources<sup>17</sup> to support voluntary and mandatory consolidations statewide. The State Water Board will continue to develop business processes and tools to facilitate these projects.

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## ADMINISTRATORS

In September 2019, the State Water Board adopted an Administrator Policy Handbook to provide direction regarding the appointment of administrators by the State Water Board to designated water systems, as authorized by Health and Safety Code section 116686.

Administrators may be individual persons, businesses, non-profit organizations, local agencies including counties or nearby larger utilities, and other entities. Administrators may be assigned broad duties such as acting as general manager for the designated water system, or specific duties, such as managing an infrastructure improvement project or accepting funds to help support operations and maintenance costs on behalf of a designated water system.

The appointment of an administrator is an authority that the State Water Board will consider when necessary to provide an adequate supply of affordable, safe drinking water. The administrator authority is designed to augment TMF capacity in struggling water systems and the administrator is required to develop a post-administrator service plan that outlines the steps needed to consolidate the water system or support the development of the water system for long-term sustainability. Water systems in need of an administrator are identified based on the Needs Assessment, the prioritization process outlined in Section III, and the direct local knowledge and expertise of State Water Board District Office staff.

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<sup>16</sup> [2022 Drinking Water Grants – Drinking Water State Revolving Fund \(DWSRF\) Program Fact Sheet](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/dw-grant-fact-sheet.pdf): [https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/docs/dw-grant-fact-sheet.pdf](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/dw-grant-fact-sheet.pdf)

<sup>17</sup> Current web-based resources, as of 2022, includes a [California water Partnerships Mapping Tool](https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=fabf64fbe50343219a5d34765eb7daad) and a [Drinking Water System Outreach Tool](https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=70d27423735e45d6b037b7fbaea9a6a6).

<https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=fabf64fbe50343219a5d34765eb7daad>;

<https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=70d27423735e45d6b037b7fbaea9a6a6>

As of 2022, qualified administrators include:

- non-profit technical assistance providers
- counties
- for-profit water systems, and
- engineering services providers

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## RURAL SOLUTIONS ENGAGEMENT

In 2022, the SAFER Program added a new Engagement Unit focused on those isolated water systems where consolidations were not feasible to directly support water systems in achieving long-term sustainability.

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## OPERATOR CERTIFICATION

In 1971, laws and regulations governing the certification of potable water treatment facility operation were enacted. The regulations establish the operator certification levels that are necessary for the water treatment and distribution systems, the minimum qualifications an applicant to become a certified operator must meet to be eligible for the water treatment and distribution operator examinations, and the criteria for the renewal and revocation of operator certificates.

In 1998, U.S. EPA established guidelines for the certification and re-certification of operators of community and non-transient non-community public water systems. On January 1, 2001, new state regulations were adopted to comply with these guidelines and the existing water treatment operator certification program was modified accordingly. (Cal Code Regs., tit. 23, §§63765 and 63770.) The new regulations also established a water distribution operator certification program. This program became the Drinking Water Operator Certification Program.<sup>18</sup>

Effective July 1, 2014, the responsibility for California's Drinking Water Operator Certification Program for public water systems was transferred from the California Department of Public Health to the State Water Board. The transfer was accomplished by means of the addition of new section 116271 to the Health and Safety Code. However, no changes were made to the operator certification program statutes or regulations.

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## SANITARY SURVEYS

A sanitary survey is a comprehensive inspection to evaluate water system potential to provide safe drinking water to their customers and to ensure compliance with the federal SDWA. The evaluation includes data verification, a review of all monitoring and reporting files in office, and a physical site visit. An inspection must include all aspects of the water system including water source, treatment facilities, distribution system,

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<sup>18</sup> [California Drinking Water Operator Certification Program](https://www.waterboards.ca.gov/drinking_water/certlic/occupations/DWopcert.html)  
[https://www.waterboards.ca.gov/drinking\\_water/certlic/occupations/DWopcert.html](https://www.waterboards.ca.gov/drinking_water/certlic/occupations/DWopcert.html)

water storage, pumps, pump facilities and controls; monitoring, reporting, and data verification; system management and operation; and operator compliance with State requirements. During the sanitary survey, field staff educate water systems on sanitary hazards that they observe, explain new regulations, and recommend trainings and technical assistance that are available.

U.S. EPA requires that community water systems be inspected every three years and non-community water systems to be inspected at least every five years. The State Water Board's Division of Drinking Water conducts inspections and documents the findings in sanitary survey reports. In some counties, authority has been delegated to LPA staff conduct those inspections for systems under 200 connections.

Significant Deficiencies may be identified by State Water Board staff or LPA staff during a Sanitary Survey and other water system inspections. Significant Deficiencies include, but are not limited to, significant defects in the design, operation, or maintenance of a public water system, or a failure or malfunction of the drinking water sources, treatment, storage, or distribution system that cause or have the potential to cause the introduction of contamination into the water delivered to consumers.

#### **ELEMENT 4: SUPPORTING CAPACITY BUILDING WORK OF THIRD-PARTY ORGANIZATIONS**

There are several third-party organizations within California with a strong record (over many years) of providing training and support for public water systems, especially smaller public water systems. Funding for this work has been provided by a variety of sources including significant funding by the DWSRF and the Safe and Affordable Drinking Water Fund. The State Water Board has historically relied on non-profit technical assistance providers but is now expanding eligibilities to include for-profit organizations to help build local capacity and help more water systems. The State Water Board continues to explore opportunities to recruit qualified technical assistance providers.

Services provided by third-party organizations include:

- Direct technical assistance including, but not limited to:
  - Coordination and development of capital improvement projects,
  - Facilitation of operation and maintenance,
  - Engineering and environmental analysis,
  - Legal assistance,
  - Leak detection/water audits,
  - Compliance audits,
  - TMF assessments,
  - Rate-Setting and rate-planning,
  - Financial analysis and planning,
  - Asset management planning, and
  - Board or operator training.
- In-person and virtual trainings on a variety of TMF topics.



The State Water Board meets regularly with its technical assistance providers to ensure they are complying with the requirements in their grant agreements and contracts, and to identify areas of potential improvement for the Capacity Development program.

## **ELEMENT 5: ENSURING TMF CAPACITY OF STATE FUNDING & FINANCING RECIPIENTS**

California provides opportunities for public water systems to utilize existing funding sources in addition to exploring new ones. These programs provide funds to repair or replace infrastructure, address ongoing water quality violations, protect a source of supply, or other activities to improve their TMF capacity. Existing sources of funds include:

**The Drinking Water State Revolving Fund (DWSRF).** DWSRF funds are available for planning and construction projects. Loan terms, interest rates, and availability of principal forgiveness differ based on water system size and service area income criteria. Funding criteria are outlined in the annual DWSRF Intended Use Plan.

**California general fund allocations and general obligation bonds.** These state funds provide considerable grant funding to support planning and construction projects. Guidelines for administration of these funds include, but are not limited to, the DWSRF Intended Use Plan and SAFER Fund Expenditure Plan.

**Safe and Affordable Drinking Water (SADW) Fund.** This funding source can be used for a diverse set of needs beyond just planning and construction work, including: interim water and other emergency needs, technical assistance, administrators, and funding for operations and maintenance costs. The strategy for implementing the SADW Fund is updated annually within the SADW Fund Expenditure Plan. Primarily through the SADW Fund, the State Water Board provides significant funding to support tools such as consolidation and administrators (Element 3), and technical assistance work (Element 4), with a focus on Failing: HR2W list and At-Risk systems.

Either prior to approving projects for funding, as part of the scope of the funding agreement, or via technical assistance offered in parallel with the funded project, the systems TMF capacity is evaluated utilizing the TMF Capacity Assessment Form (form and instructions linked below). As appropriate, special conditions may be added to the funding agreements to require funding recipients to undertake feasible and appropriate changes to enhance their TMF capacity, such as creation of an asset management plan or implementing a rate increase, to ensure compliance with the state and federal Safe Drinking Water Act over the long-term. It should be noted that the California SDWA goes beyond the federal requirements by applying the TMF instructions and requiring TMF assessments for not only community water systems but also non-transient, non-community water systems for new permits or water systems changing ownership, and water systems seeking DWSRF financing from the State.

TMF Capacity Assessment Forms and Instructions:

- [State Water Board TMF Capacity Webpage:](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.html)  
[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/TMF.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.html)
- [Instructions for Completing the TMF Assessment Form:](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/instructions_tmf_assessment.pdf)  
[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/instructions\\_tmf\\_assessment.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/instructions_tmf_assessment.pdf)

As part of ongoing process improvement efforts in the Division of Financial Assistance to ensure funding gets out to public water systems as efficiently as possible, staff plan to revisit and update the above TMF Capacity Assessment Forms and Instructions during 2023-24, to provide greater clarity for permittees and funding recipients regarding best practices and minimum expectations for receipt of funding.

## ELEMENT 6: PROMOTING ASSET MANAGEMENT

The State water Board's Needs Assessment is designed to identify public water systems that are not meeting baseline TMF capacity performance thresholds. These systems typically do not have the capacity to successfully develop and implement effective asset management. A key objective the State Water Board's Capacity Development Strategy is to assist water systems in improving their TMF capacity, especially their financial capacity, so that they can achieve good asset management.

U.S. EPA requires the inclusion of how the state will use the five-core-questions framework below to encourage the development of, and assist in the implementation of, asset management plans. The framework is composed of the following five core questions:

1. What is the current state of the utility's assets?
2. What is the utility's required "sustainable" level-of-service?
3. Which assets are critical to sustained performance?
4. What are the utility's best "minimum life-cycle cost" capital improvement plan and operations and maintenance strategies?
5. What is the utility's best long-term financing strategy?

The State Water Board requires a TMF Capacity Assessment for all principal forgiveness loans in the DWSRF. These principal forgiveness loans are mainly provided to the more vulnerable, less financially capable systems. The TMF Capacity Assessment incorporates four of the five core questions of an asset management plan, with level-of-service being the one question not addressed.

The State Water Board will encourage public water systems to develop asset management plans through approaches that best meet unique local needs. Technical assistance providers will be asked to train and assist public water systems to prepare their own asset management plans through:

- General workshops and training.

- Updated guidance information.
- Direct assistance for asset management plan development to meet DWSRF loan requirements.
- Encouraging asset management where feasible in permitting, sanitary surveys, and DWSRF requirements.

To encourage asset management, information on the major components of asset management is collected during sanitary surveys and through the Electronic Annual Report. This includes information on pumps / pumping equipment, distribution lines, storage tanks, source protection / treatment, backflow prevention, and cross connection control. Deficiencies in these areas are identified and public water systems are directed to implement solutions to ensure long-term sustainability.

To better assist water systems in developing and implementing asset management plans, the State Water Board will explore opportunities for collecting asset inventory (sources, treatment and distribution), planning, and resiliency data from water systems.<sup>19</sup> This information may also be used to support Strategic Element 2, “Identification & Prioritization of Existing Systems in Need of Improved TMF Capacity,” and Strategic Element 8, “Measuring TMF Capacity Building Success.”

## **ELEMENT 7: BUILDING CAPACITY THROUGH COMPLETE AND ACCURATE DATA GATHERING AND REPORTING**

The State Water Board has expanded and given greater visibility to the reporting requirements for public water systems. State Water Board staff and technical assistance providers work directly with water systems to help institute business practices to ensure required data is collected and reported efficiently. Examples of reporting requirements include:

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### **ELECTRONIC ANNUAL REPORT**

The Electronic Annual Report is a survey of public water systems, currently required annually, to collect critical water system information intended to assess the status of compliance with specific regulatory requirements such as source water capacity, provides updated contact and inventory information (such as population and number of service connections), and provides information that is used to assess the financial capacity of water systems, among other information reported.

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### **DROUGHT MONITORING AND REPORTING**

As drought conditions worsen, impacts to water systems are expected to continue and increase in severity. The State Water Board has the authority to issue a technical order from the Health and Safety Code, Section 116530, to collect drought related information

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<sup>19</sup> The State Water Board hosted a [workshop on August 22, 2022](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.html) to seek stakeholder input on potential asset management data points that could be collected from water systems to support this effort: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/TMF.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.html)

related to but not limited to: water shortage evaluation, water source evaluation, actions for demand reduction, and actions for augmenting water sources. The issuance of these drought reporting orders is a crucial part of the State Water Board's Drought Response Program which assists water systems in preparing for and responding to drought emergencies.

To comply with SB 552 requirements, the State Water Board will be requiring small public water systems with less than 3,000 service connections and K-12 schools to report more frequent production and delivery data. This information will be used by the State Water Board to identify water systems that are currently or are at-risk of experiencing source capacity challenges. Furthermore, the State Water Board will be collecting drought infrastructure resiliency data to ensure systems are complying with SB 552 requirements.

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## **WATER QUALITY REPORTING**

Public water systems are required to perform water quality monitoring to comply with the SDWA, regulatory requirements, monitoring orders, and permit/permit amendment provisions. The results of these analyses must be submitted no later than the 10<sup>th</sup> day of the following month that the analyses was completed, and for acute contaminants there are additional reporting requirements. Providing timely results to the State Water Board is critical for evaluating the operation of a public water system, as well as identifying potential risks to customers. Timely reporting of water quality results allows the State Water Board to quickly identify potential source contamination or treatment failure, thus facilitating notifying the public of potential health threats and directing a public water system to implement a solution.

In September 2021, the California Laboratory Intake Portal (CLIP) was launched replacing the previous intake portals known as Water Quality Management (WQM) and Lab-To-State (LTS). CLIP is planned to be the single point of access for laboratories to submit all drinking water quality data reporting requirements. It is being implemented in phases, with chemical and radiological analyses already being accepted through CLIP. Microbial analyses will be included in a future phase. CLIP also includes data validation elements, which allow laboratories to demonstrate submission of data with known and documented quality

## **ELEMENT 8: MEASURING TMF CAPACITY BUILDING SUCCESS**

The State Water Board will track the implementation and success of the Capacity Development Strategy utilizing metrics that fall within the categories listed below. These categories and metrics may evolve over time as the Strategy is implemented and the State Water Board responds to lessons learned and new program requirements. Specific quantifiable goals related to the metrics used to measure TMF capacity building success will be developed and refined through other State Water Board initiatives that

are updated regularly. These initiatives include but are not limited to: the Safe and Affordable Drinking Water Fund's Expenditure Plan<sup>20</sup> and Safe Drinking Water Plan.<sup>21</sup>

### **Water Systems:**

- Number of new public water systems permitted each year
- Number of public water systems deactivated each year
- Number of water systems consolidated each year

### **Water Systems with TMF Capacity Needs:**

- Number of systems added to and removed from the Failing: HR2W list
- Number of systems added to and removed from the At-Risk list
- Systems improved performance in the Risk Assessment

### **Direct Assistance Provided:**

Metrics to be developed include direct assistance to public water systems and specifically to Failing and At-Risk systems. Metrics may include:

- Technical assistance requested and provided
- Financial support provided
- Sanitary Surveys conducted
- Administrator assistance provided
- Interim solutions supported
- Long-term solutions supported

### **Program Performance:**

- Time to respond to requests and provide assistance
- Number of communities engaged
- Outreach efforts

## **CAPACITY DEVELOPMENT EXTERNAL PARTNERS**

To update the Capacity Development Strategy, significant input was needed from the community. The State Water Board considered a broad range of people involved with state, county, and local governments – as well as non-profit entities – to participate as stakeholders on the updates to the Capacity Development Strategy. These groups and individuals were solicited for their knowledge of the issues public water systems face here in California and their ability to assist other systems in increasing capacity.

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<sup>20</sup> [Safe and Affordable Funding for Equity and Resilience Fund Expenditure Plan Website](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/sustainable_water_solutions/safer.html)  
[https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/sustainable\\_water\\_solutions/safer.html](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/sustainable_water_solutions/safer.html)

<sup>21</sup> [Safe Drinking Water Plan for California](https://www.waterboards.ca.gov/drinking_water/safedrinkingwaterplan/)  
[https://www.waterboards.ca.gov/drinking\\_water/safedrinkingwaterplan/](https://www.waterboards.ca.gov/drinking_water/safedrinkingwaterplan/)

The State Water Board will invite and encourage stakeholder participation in the implementation of its Capacity Development program. These external partners include, but are not limited to:

- Local Primacy Agencies (LPAs)
- Department of Water Resources
- California Public Utilities Commission (CPUC)
- California Office of Environmental Health Hazard Assessment (OEHHA)
- California Department of Public Health (CDPH)
- SAFER Advisory Group
- Technical Assistance Providers
- Administrators
- Public Water Systems
- Non-Profit Entity Stakeholders
- Public Water System Customers