

**State of California
Water Resources Control Board
Division of Drinking Water**

**Drinking Water Capacity Development Program
and Safe Affordable Drinking Water Fund
Activities Report to the Governor**

Fiscal Years 2016-18

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**California Water Resources Control Board
Drinking Water Capacity Development Program
Report to the Governor
Fiscal Years 2016-18**

EXECUTIVE SUMMARY

This report is the triennial Report to the Governor prepared by the California Water Resources Control Board (State Water Board) drinking water capacity development program as required by the provisions of the federal Safe Drinking Water Act (SDWA). The U.S. Environmental Protection Agency (EPA) has delegated primacy to the State Water Board for enforcement of the provisions of the federal SDWA. Within the State Water Board, the Division of Drinking Water (DDW) oversees enforcement of drinking water standards and requirements of public water systems in California under the SDWA.

To assist public water systems in meeting the standards of the SDWA, EPA provides funds to the State Water Board through the Safe Drinking Water State Revolving Fund (SRF) program, which enables the State Water Board to administer low-interest loans and grants to public water systems for infrastructure improvement projects.

Within the SRF program, EPA provides set-aside funds for the capacity development program which seeks to improve the viability of public water systems by improving their technical, managerial, and financial (TMF) capacity. Capacity can be defined as those TMF elements that affect the ability of public water systems to operate in compliance with the federal SDWA on a sustained basis.

This report is intended to document the efficacy of California's capacity development strategy and the progress made toward improving the TMF capacity of public water systems. In August 2000, EPA approved California's Capacity Development Strategy. The overall goal of the plan is to increase the ability of public water system operators, managers, and decision-makers to consistently operate, maintain, and manage their public water systems in a manner that protects public health.

The capacity development program's accomplishments and improvements are detailed in this report as well as the successes and challenges the program has experienced in the past three years. With the current establishment of the Safe and Affordable Drinking Water Fund under SB 200 in 2019, this report also includes an additional section which details upcoming efforts to identify high-risk systems for interim assistance in addition to increasing water system capacity. Thanks to the collaborative efforts of the Governor, the Legislature and community advocates, there is now a reliable funding source for the next 11 years to address drinking water concerns in communities where drinking water concerns have thus far proved challenging to address. As the State Water Board looks to the next three years, challenges remain, but the components of the capacity development program are in place to provide assistance to public water systems where needed.

**California Water Resources Control Board
Drinking Water Capacity Development Program
Report to the Governor
Fiscal Years 2016-18**

1.0 INTRODUCTION

Under the provisions of United States Codes, Section 1420(c)(3) of the federal Safe Drinking Water Act (SDWA), the California Water Resources Control Board (State Water Board) Division of Drinking Water (DDW) is required to prepare a report to the Governor every three years on its capacity development program. These reports are to be made available to the public and are intended to document the efficacy of California's capacity development strategy and the progress made toward improving the technical, managerial, and financial (TMF) capacity of public water systems.

This report spans the State fiscal years (FYs) from July 1, 2015 to June 30, 2018.

The U.S. Environmental Protection Agency (EPA) has delegated primacy to the State Water Board for enforcement of the provisions of the federal SDWA. The State Water Board has subdelegated primacy for the oversight of small water systems to 30 counties. These Local Primacy Agencies (LPAs) are local environmental health agencies that regulate small community public water systems less than 200 service connections, or any transient noncommunity or nontransient noncommunity water systems within their county. However, the State Water Board retains regulatory oversight of the 30 counties that chose to have an LPA drinking water program under a Local Primacy Delegation Agreement.

To assist public water systems in meeting the standards of the federal SDWA, EPA provides funds from the Safe Drinking Water State Revolving Fund (SRF) to the State Water Board to administer low-interest loans and grants to public water systems for infrastructure improvement projects. In addition, EPA allows states to set-aside a portion of those funds for capacity development and technical assistance. These two set-aside funding sources are combined in this report as the capacity development program.

In August 2000, EPA approved the State Water Board's Capacity Development Strategy. This approval was required by the federal SDWA to enable California to access the federal matching funds available through the SRF.

At a minimum, EPA required that each state address specific core issues in their Capacity Development Strategies to ensure that new community and nontransient noncommunity water systems, as well as systems with SRF funded projects, demonstrate TMF capacity prior to receiving authority to operate. California statute requires that all new public water systems, including transient noncommunity water systems, demonstrate TMF capacity prior to receiving authority to operate. In addition, EPA wanted to ensure that TMF deficiencies of existing public water systems were identified and corrected.

The overall goal of State Water Board’s Capacity Development Strategy is to increase the ability of public water system operators, managers, and decision-makers to consistently operate, maintain, and manage their public water systems in a manner that protects public health. The approved Capacity Development Strategy is designed to:

1. Define those factors that encourage or impair capacity development.
2. Identify and prioritize public water systems most in need of TMF capacity improvement.
3. Provide technical assistance and training to those public water systems in need of TMF capacity improvement.

During FY 2016-18, the capacity development program worked to ensure the viability of public water systems by improving their TMF capacity. The following 13 elements are categories that contribute to a public water system’s ability to operate in compliance with the SDWA on a sustained basis, and are evaluated to determine whether a water system has adequate capacity:

Table 1. Elements of the TMF Criteria

Technical Capacity
Consolidation Feasibility
System Description
Certified Operators
Source Capacity
Operations Plan
Training
Managerial Capacity
Ownership
Water Rights
Organization
Emergency Response Plan
Policies
Financial Capacity
Budget/Capital Improvement Plan
Budget Control

2.0 PROGRAM ACCOMPLISHMENTS AND IMPROVEMENTS

From FY 2016-18, the capacity development program witnessed many successful activities that assisted public water systems in improving their TMF capacities. The State Water Board utilized a variety of tools to measure capacity development program accomplishments and improvements. These tools included compliance information recorded as the number of water systems with violations, and certification of water treatment and distribution system operators. The SRF capacity development and technical assistance set-aside funds enabled State Water Board to contract with several third-party providers to help public water systems that either

lacked or desired to improve their TMF capacity. The third-party providers during FYs 2016-18 were:

1. California Rural Water Association
2. Rural Community Assistance Corporation
3. Self-Help Enterprises

These providers also participated in the outreach advisory committee known as the California Technical Assistance Providers (CalTAP) Workgroup.

2.1 TECHNICAL ASSISTANCE

Technical assistance was provided to public water systems by State Water Board and LPA staff as well as by third-party providers.

2.1.1 State Water Board

For the SRF program during the last three FYs, 501 water systems (238 for planning projects and 263 for construction projects) applied for funding through the Financial Assistance Application Submittal Tool to rectify various deficiencies. Of those water systems, 404 water systems submitted complete applications of which 184 funding agreements were executed. Through the SRF technical assistance set-aside funding administered by the Division of Financial Assistance (DFA), technical assistance was provided to 6,487 public water systems through the technical assistance providers.

State Water Board field staff provided technical assistance to public water systems under the USEPA Public Water System Supervision Program. This assistance included:

1. Recommendations to water system staff made during inspections and sanitary surveys;
2. Education about the regulatory requirements specific to individual water systems;
3. Consultation regarding water system upgrades and potential funding projects;
4. Evaluation of TMF assessments;
5. Review of permit amendments following construction projects; and
6. Other services as needed.

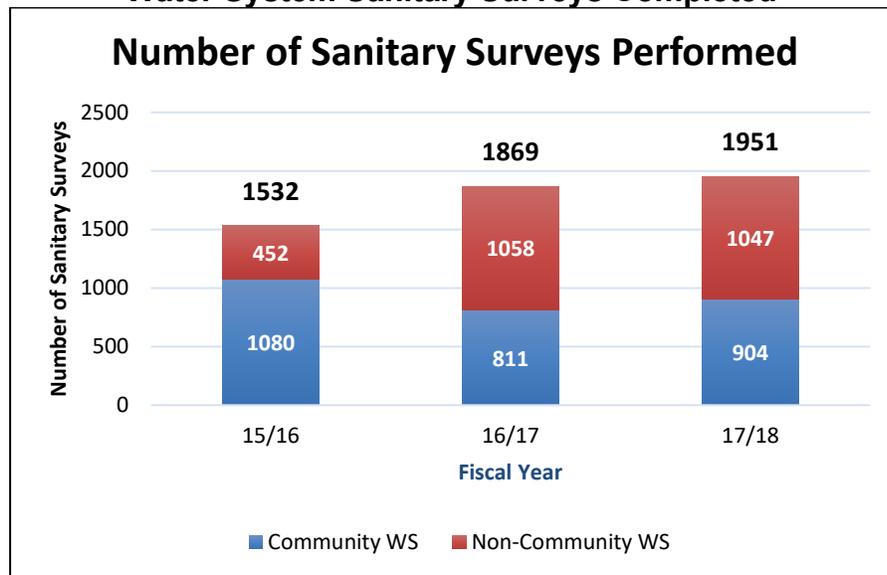
The following table is a summary of the sanitary surveys completed during each of the past three fiscal years. Community water systems must be inspected every three years, whereas noncommunity systems must be inspected every 5 years. Figure 1 displays the data from the table in bar graph form.

Table 3. Total Number of Community and Non-Community Water System (WS) Sanitary Surveys Completed

Fiscal Year	Total Number of Community WS	Total Number of Non-Community WS	Community WS Surveys Completed	Non-Community WS Surveys Completed	Total Sanitary Surveys Completed
15/16	2925	4527	1080	452	1532
16/17	2934	4614	811	1058	1869
17/18	2913	4522	904	1047	1951
Total	-	-	2795	2557	5352

Note: The total number of community and non-community water systems in each fiscal year is based off the date the systems were established in the Safe Drinking Water Information System (SDWIS). This may or may not reflect the exact date a system began service. Also note that transient noncommunity and nontransient noncommunity together are counted as noncommunity water systems.

Figure 1. Total Number of Community and Non-Community Water System Sanitary Surveys Completed



2.1.2 California Rural Water Association (CRWA)

The State Water Board identified water systems that lacked TMF capacity by using information provided by the State Water Board field staff based on inspections, sanitary surveys, monitoring results, and other information. These water systems were placed on the assistance referral list and were prioritized according to public health risk.

From this list, CRWA SRF specialists were assigned to provide direct assistance to public water systems to improve TMF capacity. During FYs 2016-18, CRWA staff provided technical assistance to 194 small public water systems which included:

1. Rectifying compliance issues for those water systems with significant violations or other deficiencies that have or could lead to violations of primary drinking water standards;
2. Completing the SRF and other State Water Board funding programs' applications and required TMF assessments for water systems with funding projects; and
3. Improving the overall TMF capacity of small public water systems by completing:
 - a. Five-year budget projections and capital improvement plans;
 - b. Water system technical evaluations;
 - c. Operations plans; and
 - d. Emergency response plans.

WHO ARE THE SWS TECHNICAL ASSISTANCE PROVIDERS?

CALIFORNIA RURAL WATER ASSOC.

Incorporated in 1990, the California Rural Water Association (CRWA) is a multi-dimensional, organization with a proven history of providing high quality training and technical assistance that is tailored to rural water and wastewater systems, targeting operators, managers and decision makers, throughout the State of California. CRWA uses professionals with experience in these utility services.

2.1.3 Rural Community Assistance Corporation (RCAC)

RCAC developed and conducted statewide classroom and online training workshops that focused on building the TMF capacity of small public water systems. Input concerning the content and location of these workshops was obtained from State Water Board and LPA field staff as well as public water systems and other existing training and outreach staff.

RCAC completed a total of 372 classroom and online workshops during FYs 2016-18 with an average attendance of 30. Attendees were requested to complete a survey at the completion of each workshop. Of the approximately 11,265 attendees, 11,172 responded, and of those 95% responded positive (the workshop fulfilled their needs and expectations), 5% responded neutral and less than 0.6% responded negative.

RCAC provided technical assistance upon request without the need to be on a priority list to water system personnel who had attended one or more of the RCAC workshops. This was often on financial assistance to demonstrate how to develop a budget with a capital improvement plan or to give a presentation to water system constituents and management staff regarding the need for increased revenues. During FYs 2016-18, RCAC provided technical assistance to 64 small public water systems.

At the request of State Water Board, RCAC conducted focused median household income (MHI) surveys to determine whether or not a water system could qualify for disadvantaged status for State Water Board funding programs, which included SRF as well as Propositions 50 and 84. If the water system service area was determined to be disadvantaged, the proposed project could rank higher on the project priority lists, and the water system could qualify for better funding opportunities. During FYs 2016-18, RCAC completed 49 MHI surveys.

WHO ARE THE SWS TECHNICAL ASSISTANCE PROVIDERS?

RURAL COMMUNITY ASSISTANCE CORP.

RCAC works with low-income rural communities, where unemployment rates are high, housing is often sub-standard, and poverty is commonplace. Many of these communities also face daunting challenges to access affordable, safe drinking water and other vital infrastructure. Rural communities are often overlooked in the policy arena because they lack the resources, training or social network that larger communities have in place. RCAC includes Tribes and Native communities in all program areas. RCAC provides training, technical and financial resources and advocacy so rural communities can achieve their goals and visions.

2.1.4 Self-Help Enterprises (SHE)

Under a contract that commenced during FYs 2016-18, SHE provided direct technical assistance to water systems in Stanislaus, Merced, Mariposa, Madera, Fresno, King, Tulare, and Kern counties that had applied for State Water Board funding. Many of these water systems were disadvantaged.

Often this assistance consisted of SHE community outreach with water system decision-makers and constituents to facilitate the acquisition of funding. SHE helped water systems solicit engineering services, conduct rate studies, income survey, and funding applications.

SHE also provided assistance in completing the required TMF documents for State Water Board funding as well as ongoing advice to water boards regarding management and policies. During FYs 2016-18, SHE provided assistance to 51 public water systems.

2.2 CAPACITY DEVELOPMENT

The California SDWA requires that TMF assessments and staff evaluations be completed for all new water systems, for changes of ownership and for all SRF funded projects.

2.2.1 State Water Board

The TMF assessments and State Water Board field staff evaluations for new community and nontransient noncommunity water systems and SRF funded projects were forwarded to State Water Board to have the mandatory TMF elements reviewed for completeness and consistency.

Compliance with mandatory TMF elements had to be completed prior to the issuance of financing or a new water system or change of ownership water supply permit. The mandatory elements for SRF funded projects were consolidation feasibility, ownership, water rights, and a capital improvement plan. For new water systems or a change in water system ownership, the mandatory elements included the items above as well as system description, certified operators, source capacity assessment, operations plan, organization, emergency response plan, budget projection, and budget control.

Compliance with necessary TMF elements had to be addressed satisfactorily within a timeframe determined by the regulatory agency which typically would be six months after financing a

WHO ARE THE SWS TECHNICAL ASSISTANCE PROVIDERS?

SELF HELP ENTERPRISES

SHE was formed in 1964 to help three low-income families build their own homes in Goshen, CA. SHE has provided technical assistance for reliable access to safe drinking water and sanitary sewer infrastructures to small communities, provides resources and training for individuals to build capacity to be highly effective leaders in communities, and promotes collaborative solutions for improving communities. SHE serves the eight counties in the San Joaquin Valley – Fresno County, Kern County, Kings County, Madera County, Mariposa County, Merced County Stanislaus County and Tulare County.

project completion or permit issuance. The following elements were considered necessary TMF elements for SRF funded projects: system description, certified operators, source capacity, operations plan, training, organization, emergency response plan, policies, and budget control. The necessary TMF elements for new systems or change of water system ownership were training, and policies. In the past three FYs, State Water Board staff reviewed the required TMF documents for 154 new public water systems. A table listing the mandatory and necessary TMF elements can be found in Appendix A.

2.2.2 Program Liaison Unit

The Program Liaison unit provides support to the LPAs and to State Water Board field offices to assist in carrying out an efficient and effective regulatory program. The unit aids LPAs by providing ongoing training and oversight which assists them in helping small water systems achieve and maintain compliance with all drinking water standards. The Program Liaison Unit manages the DDW drinking water capacity development program.

2.2.3 State Water Board Capacity Development Website

State Water Board focused on tools that small water systems could use to develop their TMF capacities. All of the current TMF documents are posted on the DDW website, including the TMF assessment and staff evaluation forms for SRF funded projects, new public water systems, and changes of ownership for community and noncommunity water systems as well as TMF guidance criteria and checklists.

Other useful tools on the website included various five-year budget projection and capital improvement plan calculators, equipment life expectancy chart, sample emergency notification letters, and operations plan and emergency response plan templates. In addition, links to the websites of organizations that provide services for small water systems were provided. The State Water Board capacity development website is located at:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.html

2.2.4 tmF (Financial Capacity) Workgroup

During FY 17-18, the State Water Board created a workgroup of DDW and DFA staff to strengthen their methods for evaluating existing water systems' financial capacity. The tmF workgroup has created draft forms to analyze a system's financial documents and activities, including their asset and capital improvements plans, reserve management, and financial planning and reporting.

In Fall 2018, the workgroup began to pilot the first version of their financial capacity assessment template during sanitary surveys at approximately ten water systems state-wide, including a variety of governance types, economic status, and sizes. After reviewing and discussing the process and results, the assessment template will be revised, and a larger pilot project will begin, including larger stakeholder input including public water systems, California Conference of Environmental Health Directors and LPAs in the process. Once complete, the workgroup will discuss metrics for long-term effectiveness of financial assessment and will reflect on potential

regulatory needs based on the pilot results and stakeholder input. When the pilot phase is completed, training will be given to field staff to implement the financial capacity assessment during sanitary surveys to improve their review of financial capacity of water systems and give them tools to provide water systems with support.

2.3 BASELINE ASSESSMENT

2.3.1 TMF Tune-Up

The TMF Tune-up is a questionnaire that was designed to evaluate the TMF capacity of California water systems. The questionnaire has been offline since the Drinking Water Program transitioned from the California Department of Public Health to the State Water Board in 2014 because the format was not supported by the State Water Board's online system. Although it was anticipated that it would be online by December 2015, DDW is on a path to recreate and re-envision the tool and is aiming to have it available sometime in 2022.

DDW will use Tune-Up information to evaluate public water system capacity and better allocate technical assistance resources, which will enable public water systems to proactively improve their water systems. It may also be used as a basis for broader programs which encourage consolidations or regionalization.

3.0 CAPACITY DEVELOPMENT SUCCESSES

3.1 CONSOLIDATIONS

In an effort to improve access to clean, reliable, and affordable water supplies for communities, the State Water Board redoubled its efforts to support water partnerships, consolidations and regional projects.

Small public water systems are often less resilient to natural disasters, such as drought and fire, have more difficulty adjusting to regulatory changes, and may struggle to fund infrastructure maintenance and replacement due to poor economies of scale and lack of staff. Consolidated water systems can share costs such as billing and operational personnel, the cost of new water sources, and often can purchase time-saving equipment that neither system could afford to purchase alone because they can spread costs over a larger customer base. One of the benefits of physical consolidation and/or regionalization, over water partnerships, can also be lowered monitoring costs.

Managerial consolidations also exist. Managerial consolidation is when a small water system becomes part of a larger water system for all managerial purposes but continues to use their original water supply and distribution system. For example, a small community may once have had an all-volunteer staff. The volunteer staff may be aging and no longer wants to be responsible for the water system. The water system may be too far from the large water system to make it cost-effective to physically consolidate. The larger water system can legally take over the water system functions such as regulatory reporting, billing, operations, etc., but use its

existing infrastructure. The smaller water system dissolves and is no longer legally responsible for water service. Benefits of managerial consolidation include cost sharing for billing and operational personnel, the cost of new water sources, and systems often can purchase time-saving equipment that neither system could afford to purchase alone because they can spread costs over a larger customer base.

Effective June 24, 2015, Senate Bill 88 (Statutes 2015, Chapter 27) added sections 116680-116684 to the California Health and Safety Code, authorizing the State Water Board to order consolidation with a receiving water system where a public water system, or a state small water system within a disadvantaged community, consistently fails to provide an adequate supply of safe drinking water. The consolidation may be physical or operational but requires that the consolidation is a cost-effective alternative and that water rights and contracts have been addressed. Senate Bill 88 authorizes the State Water Board to order the extension of service to an area that does not have access to an adequate supply of safe drinking water so long as the extension of service is an interim extension of service in preparation for consolidation. Prior to ordering consolidation or extension of service, the State Water Board shall conduct an initial public meeting and a public hearing and make specified findings. Although the State Water Board has encouraged -- and will continue to encourage -- voluntary consolidations of public water systems, the authority has allowed the State Water Board to intervene when voluntary consolidation efforts are not progressing. Two subsequent bills, Senate Bill 552 and Assembly Bill 2501, added additional clarifying language and expanded the scope of the initial legislation to include state small water systems and individual well owners that petition the State Water Board to be consolidated. During FYs 16-18, there were 18 mandatory consolidations initiated. One mandatory consolidation has been completed, five were resolved voluntarily, and one was deemed ineligible. More information on mandatory consolidation can be found on the Mandatory Consolidation or Extension of Service for Disadvantaged Communities website:

What is Water System Consolidation?

Consolidation is the joining of two or more water systems, which includes, usually but not always, a smaller system being absorbed into a larger water system. One way to do this is through physical consolidation. For example, a small mobile home park which has its own water system may be near a city and decides it no longer wishes to be responsible for providing drinking water. The city can begin providing water to the mobile home park through an interconnection. The mobile home park can dissolve its water system and no longer be responsible for providing water. In this case, we call the city the "receiving" water system and the mobile home park the "subsumed" water system.

https://www.waterboards.ca.gov/drinking_water/programs/compliance/

The State Water Board began tracking consolidations in 2017. All the consolidations that were completed between January 1, 2017 to June 30, 2018 were voluntary. Many of the subsumed systems were out of compliance or were faced with a water shortage issue. Table 4 shows the number of consolidations completed per year.

Table 4. Total number of Completed Consolidations

Fiscal Year	Number of Consolidations Completed *
1/1/2017-6/30/2017	28
7/1/2017-6/30/2018	36
Total	64

**The State Water Board began tracking consolidations on January 1, 2017.*

The consolidation numbers listed in Table 4 include some state small water systems and individual home clusters. A list of voluntary and mandatory consolidations can be found in Appendix B and C. Additional details on specific water system consolidations can be found on the Water Partnerships and Voluntary Consolidation website.

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/dashboard.html

Effective January 1, 2017, [Senate Bill 1263](#) requires 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 6 months before initiating construction of any water-related improvement. The State Water Board is authorized to deny the permit of a proposed public water system if it determines that it is reasonably foreseeable that the proposed new public water system will be unable to provide affordable, safe drinking water in the reasonably foreseeable future.

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. It is the policy of the State Water Board to discourage the establishment of new, unsustainable public water systems when there is a feasible alternative. The preliminary technical report should look at existing community water systems within a three-mile radius and discuss the feasibility of annexing, connection or otherwise supplying water to the proposed new public water system. The applicant is required to submit a cost estimate for becoming a separate public water system and consolidate with a nearby existing water system. If physical consolidation is not feasible, the applicant must investigate pursuing a contract for managerial consolidation. Additional requirements include a 20-year water supply projection and discussions with the Local Agency Formation Commission. The requirements in Senate Bill 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.

3.1.1 Success Story: Pratt Mutual Water Company

Thanks to the State Water Resources Control Board's mandatory consolidation order issued on March 29, 2016, the 1,500-plus residents of Matheny Tract, who were once served arsenic-tainted water by Pratt Mutual, are now receiving drinking water from Tulare that meets state and federal standards.

In 2010, DDW, then with the California Department of Public Health, issued a compliance order to Pratt Mutual for consistently violating the maximum contaminant level for arsenic. After the order was issued, Pratt Mutual began talks with Tulare regarding consolidation into the larger system. In April 2011, Tulare and Pratt Mutual agreed to proceed with the consolidation. In August 2013, \$4.9 million in Proposition 84 funding was made available to construct a new water distribution system for Matheny Tract, which included two points of connection to Tulare's water system.

The State Water Board, having encouraged voluntary consolidation, issued the mandatory order to get the two systems to consolidate after delays in the process. This was the first mandatory consolidation order issued by DDW.

3.2 CALIFORNIA TECHNICAL ASSISTANCE PROVIDERS (CAL TAP)

The State Water Board drinking water technical assistance contractors, as well as State Water Board staff, comprise the CalTAP outreach advisory committee.

During FYs 2016-18, CalTAP was successful in a number of ways. It provided a forum for the technical assistance providers and regulatory staff to share their activities and to work collaboratively. The various CalTAP entities promoted each other's activities at workshops, conferences, technical assistance visits, and other outreach events as well as in registration fliers and trade publications. In discussing potential solutions to common problems, several improvements came to be implemented in the capacity development program through CalTAP:

1. Online Workshops

CalTAP discussions lead to developing an online format that has been especially effective with the water system board member training workshop series.

During FYs 2016-18, RCAC offered an online Board Basics series in two-hour segments that enabled board members to attend these workshops using their own computers without traveling or devoting an entire day to the training.

2. CalTAP Fair

Because the CalTAP activities were beginning to have potentially wide-reaching impacts on the public water systems, the CalTAP Workgroup held two one-day CalTap Fair workshops. These events enabled the CalTAP member participants to speak about their programs in the morning sessions and be available to meet one-on-one with CalTAP Fair attendees. In the afternoon, a variety of specific workshops were offered.

RCAC agreed to handle the logistics and advertising by incorporating the CalTAP Fair into their workshop schedule. These events were extremely well-received. Fairs were held in Southern, Central, Coastal and Northern California for a combined attendance of 371 participants during FYs 2016-18.

4.0 CAPACITY DEVELOPMENT CHALLENGES

4.1 SMALL WATER SYSTEM FINANCIAL SOLVENCY

The greatest challenge faced by small water systems is financial solvency. While most public water systems meet their routine financial obligations and do satisfy the regulatory standards, many systems have not planned for the reserves that are necessary to replace their aging infrastructure in a timely manner on an appropriate schedule.

The challenge for the capacity development program is to ensure that water systems use the resources that are available to them. The capacity development program is working with regulators to encourage water systems to utilize these services especially when deficiencies are noted during inspections or sanitary surveys that reflect a lack of fiscal resources. The overall challenge is to integrate the capacity development program services with the regulatory enforcement activities to ensure that water systems in need of assistance maximize the services that are available to them.

5.0 SAFE AND AFFORDABLE DRINKING WATER FUND

Although the long-term goal is to ensure that all drinking water systems can sustainably and affordably provide safe drinking water through capacity development, with the current establishment of the Safe and Affordable Drinking Water (SADW) Fund under SB 200 in July 2019, there is now a reliable funding source for the next 11 years to address drinking water concerns in communities which drinking water problems that have thus far proved challenging to address. This means that the near-term goal of ensuring that every Californian has safe water to drink will be easier to attain. Interim solutions could include temporary connections to safe sources, point-of-use treatment systems, drilling wells into uncontaminated aquifers, and trucking water directly to communities using certified haulers. Interim assistance will assure that all community members have access to safe drinking water while permanent solutions are being planned and constructed.

On implementing SADW, the State Water Board's goals are to identify systems that have ongoing violations or may be at risk for failure based on historical compliance issues, aging infrastructure, TMF capacity, and/or other risk factors; strongly promote consolidation and regional solutions; accelerate project development and implementation timelines; develop and support comprehensive solution assistance services and local TMF capacity building; and ensuring access to immediate, interim solutions where needed.

One of the first steps is to identify and prioritize public water systems in need of interim solutions. Initial assessment will be accomplished through the Needs Assessment.

6.0 NEEDS ASSESSMENT

The State Water Board was [appropriated funding](#) in FY 2019 to implement a Needs Analysis on the state of drinking water in California. Overall, the Needs Analysis will cover three Elements:

1. Identification of Public Water Systems in Violation or At-Risk,
2. Identification of Domestic Wells and State Small Water Systems At-Risk, and a
3. Cost-analysis for Interim and Long-term Solutions for problems identified in Elements 1 and 2.

Overall, these three elements will provide DDW with methodology for ranking drinking water risk for public water systems to domestic well users, and then evaluating solutions for these risks. The project will also calculate the necessary costs to lessen drinking water risks after reviewing existing funding sources and needed funding sources and prioritize these needs.

7.0 CAPACITY DEVELOPMENT STRATEGY FOR FY 19-21

State Water Board has recently placed a high priority on small and/or disadvantaged communities which face specific challenges related to their drinking water systems. In response to this, DDW developed an addendum to the 2000 capacity development, and placed a special focus on these communities' water systems. The addendum spans three fiscal years, a time period that coincides with this triennial capacity development report. The strategy is comprised of 10 strategic goals, which are summarized below. To read the "State Water Resource Control Board Drinking Water Capacity Development Strategy," please visit the following webpage:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Publications.html

The strategy can also be found in Appendix D. The following table summarizes the strategy goals.

Table 1: Drinking Water Capacity Development Strategic Plan Goals for Fiscal Years 2019 - 2021

No.	Goal	SDWA Element(s)	Implementation
1	Reduce Water System Inventory through Consolidation	3	Ongoing
2	Increase Stakeholder Engagement and Understanding	5	Ongoing
3	Form a Capacity Development Coordination Team	3	1 st Quarter 2020
4	Identify High-Risk Water Systems in Order to Proactively Support Sustainability and Resiliency	1,3	2 nd Quarter 2020
5	Develop a Tracking System for Prioritizing and Tracking Progress of Projects	1,4	2 nd Quarter 2020

6	Evaluate and Expand Efficiency of Technical Assistance Providers' Performance	2	2 nd Quarter 2020
7	Update DDW's Capacity Development Website		2 nd Quarter 2020
8	Enhance the Financial Review of Water Systems During Sanitary Surveys	2	3 rd Quarter 2020
9	Develop a Financial Capacity Tool	2	1 st Quarter 2021
10	Follow-Up on Newly Permitted Water Systems	2	1 st Quarter 2021

8.0 SUMMARY

The overall goal of the capacity development program is to increase the ability of public water system operators, managers and decision-makers to consistently operate, maintain and manage their public water systems in a manner that protects public health. Lately, the State Water Board has been redoubling its efforts in encouraging water system consolidation whenever feasible. The goal of the Capacity Development Strategy is to effectively use the resources and legal authority of the Water Board to achieve the objectives of the SDWA and augment the State Water Board's existing public water system regulatory program. In the last three FYs, the capacity development program has worked toward the overall goal via the Capacity Development Strategy. Challenges still exist, but the components are in place to provide assistance where needed and the program is evaluated annually to assure it is current and addressing issues of the changing landscape, especially now that there is now a reliable funding source to address drinking water concerns. The program will continue working toward this goal to increase the ability of public water systems to provide drinking water that consistently meets all drinking water standards over time in a manner that protects public health.

Appendix A
DOCUMENTATION REQUIREMENTS FOR TMF ASSESSMENTS

TMF ELEMENTS		DWSRF FUNDING PROJECTS	NEW WATER SYSTEMS
TECHNICAL	1. Consolidation Feasibility	Mandatory	Mandatory
	2. System Description	Necessary	Mandatory
	3. Certified Operators	Necessary	Mandatory
	4. Source Capacity	Necessary	Mandatory
	5. Operations Plan	Necessary	Mandatory
	6. Training	Necessary	Necessary
MANAGERIAL	7. Ownership	Mandatory	Mandatory
	8. Water Rights	Mandatory	Mandatory
	9. Organization	Necessary	Mandatory
	10. Emergency Response Plan	Necessary	Mandatory
	11. Policies	Necessary	Necessary
FINANCIAL	12. Budget Projection/ Capital Improvement Plan	Mandatory	Mandatory
	13. Budget Control	Necessary	Mandatory

APPENDIX B
VOLUNTARY CONSOLIDATIONS- JANUARY 1, 2017 TO JUNE 30, 2018

PWS Number	PWS Name	Type	Inactivation Date	Population	Service Connections	County	Receiving Water System
CA0310015	RABB PARK COMMUNITY SER. DIST.	C	1/11/2017	268	108	Amador	Amador Water Agency
CA5403038	SPRINGVILLE WATER CO.	C	1/15/2017 ³	50	5	Tulare	City of Porterville
CA5601206	LIMONEIRA CO. - MCKEVETT	C	2/1/2017	36	9	Ventura	City of Santa Paula Water Dept.
CA5400966	WESTLAKE VILLAGE MHP	C	2/15/2017	350	137	Tulare	CWS-Visalia
CA1510041	NORTH OF THE RIVER MWD	C	3/9/2017	0	1	Kern	Oildale MWC
CA2910007	NEVADA IRRIGATION DISTRICT-CASCADE SHORES	C	3/14/2017 ²	959	393	Nevada	Nevada Irrigation District's E-George PWS
CA5400600	GOLDEN KEY APARTMENTS	C	3/21/2017	48	16	Tulare	City of Porterville
CA5400570	CHINOWTH APARTMENTS	C	4/1/2017	28	10	Tulare	CWS-Visalia
CA0600011	DEL ORO WATER CO.-WALNUT RANCH	C	4/6/2017	182	78	Colusa	City of Colusa
CA3302093	COUNTY WATER OF RIVERSIDE	C	5/25/2017	420	140	Riverside	Eastern Municipal Water District (EMWD)
CA5403202	SALLY TRACH WATER SYSTEM	C	5/25/2017	25	10	Tulare	City of Porterville
CA1500508	TWIN PINES MOBILEHOME PARK	C	6/5/2017	92	40	Kern	City of Bakersfield
CA1805009	WEST PATTON VILLAGE CSD	C	6/7/2017	465	155	Lassen	Herlong PUD
CA0910010	PLACERVILLE, CITY OF - SIERRA GOLF & CC	C	6/20/2017	320	264	El Dorado	City of Placerville-Main
CA1200698	MOBILE ESTATES FN	C	6/26/2017	120	66	Humboldt	City of Placerville-Main
CA0900655	ROCKWATER APTS.	C	6/28/2017	50	24	El Dorado	Lukins Brothers Water Company
CA3400332	OXBOW MARINA (SWS)	C	7/18/2017	200	95	Sacramento	Cal-Am Isleton
CA3310015	ELSINORE VALLEY MWD - TEMESCAL	C	7/20/2017	2294	696	Riverside	Elsinore Valley MWD
CA3601055	ROADRUNNER MHP	C	7/28/2017	150	59	San Bernardino	Golden State-Morongo Del Norte
CA2910007	NEVADA ID - CASCADE SHORES	C	8/31/2017	959	393	Nevada	Nevada ID-E. George
CA4000512	BELLA VISTA MOBILE LODGE	C	10/20/2017	200	84	San Luis Obispo	Paso Robles Beach Water Association

PWS Number	PWS Name	Type	Inactivation Date	Population	Service Connections	County	Receiving Water System
CA900555	MATTERHORN INN	C	11/27/2017	40	2	El Dorado	South Tahoe PUD
CA5403149	RANCHO LOPEZ WATER SYSTEM	C	12/31/2017	50	11	Tulare	City of Porterville
CA5403212	RESIDENTS OF MONSON-INDIVIDUAL WELL CONSOLIDATION PROJECT	C	N/A ⁴	140	34	Tulare	Formation of a new water system (Monson Water System) composed originally of individual wells
CA5000308	B & H MANUFACTURING	NTNC	3/29/2017	90	1	Stanislaus	City of Ceres
CA1600296	OLAM SPICES AND VEGETABLES INC	NTNC	5/25/2017	75	7	Kings	Hanford
CA5403010	VISALIA CITRUS PACKERS-WOODLAKE	NTNC	5/26/2017	150	3	Tulare	City of Woodlake
CA2702624	UNI-KOOL WS	NTNC	7/12/2017	180	6	Monterey	Cal-Water
CA400066	DURHAM UNIFIED SCHOOL DISTRICT	NTNC	8/30/2017	1200	18	Butte	Durham Irrigation
CA4000743	UPS - SAN LUIS OBISPO	NTNC	10/20/2017	35	1	San Luis Obispo	City of San Luis Obispo
CA1900122	ENVIRONMENTAL CARE INDUSTRIES-VLY CREST	NTNC	11/20/2017	100	4	Los Angeles	LA - DWP
CA1310017	CHP CALEXICO PORT OF ENTRY	NTNC	12/8/2017	223	1	Imperial	Gateway to Americas
CA2000578	PETE'S PLACE (WATER)	NC	3/24/2017	150	1	Madera	Hillview WC - Oakhurst/Sierra Lakes
CA1300611	SHUEY SHELL CANYON WATER CO.	NC	3/28/2017	25	19	Imperial	Ocotillo Mutual Water Company
CA3303012	BEL AIR GREENS, LP	NC	4/18/2017	150	1	Riverside	Desert Water Agency
CA4900922	SMOTHER'S WATER SYSTEM	NC	5/9/2017	45	1	Sonoma	Kenwood Village Water
CA3400359	HAMILTON STREET PARK	NC	6/1/2017	100	4	Sacramento	Sacramento Suburban Water District
CA0800613	CRIVELLI'S WATER SYSTEM	NC	6/29/2017	100	1	Del Norte	Yurok Indian Tribe McBeth
CA0900539	SUNRAY TAHOE HOTEL	NC	7/20/2017	120	3	El Dorado	South Tahoe PUD
CA900548	MARK TWAIN MOTEL	NC	8/9/2017	25	21	El Dorado	South Tahoe PUD
CA900636	TRUCKEE CREEK COTTAGES	NC	8/9/2017	6	30	El Dorado	South Tahoe PUD
CA3301566	LAKE CAHUILLA COUNTY PARK	NC	8/10/2017	500	61	Riverside	Coachella Valley Water District: Cove Community

PWS Number	PWS Name	Type	Inactivation Date	Population	Service Connections	County	Receiving Water System
CA3302027	EMPIRE POLO CLUB *OOB*	NC	8/10/2017	50	1	Riverside	Indio Water Authority
CA3303085	HITS, INC. - OOB	NC	8/10/2017	900	5	Riverside	CVWD
CA1000624	SUNNYSIDE MARKET	NC	9/5/2017	429	2	Fresno	City of Fresno
CA5400507	VISALIA/ SEQUOIA SOUTH KOA	NC	11/20/2017	169	83	Tulare	Cal Water Service-Visalia
CA1502163	LINNS VALLEY SCHOOL	NP	3/1/2017	106	4	Kern	Glennville Mutual Water Company
CA2202048	INDIAN FLAT R V PARK AND CAMPGROUND	NP	3/14/2017	100	53	Mariposa	Cedar Lodge Resort
CA2400176	ST. PAUL LUTHERAN DAY CARE	NP	6/19/2017	50	1	Merced	City of Merced

¹Note: TCR - Total coliform rule, DBP - Disinfection Byproducts, PCE - Perchloroethylene

²Customers receiving water, but water treatment facilities are remaining as redundancy for a period of time.

³Consolidation completed on January 15, 2017; system inactivated in SDWIS on 1/25/2018

⁴ The formation of the Monson Water Company was a consolidation project of individual well owners to form a new public water system. It is anticipated that eventually the new system will be further consolidated by Sultana CSD.

APPENDIX C
MANDATORY CONSOLIDATION OR EXTENSION OF SERVICE FOR DISADVANTAGED COMMUNITIES¹ - FY16-18

Water Systems	6-Month Consolidation Letter	Public Meeting Date ²	Public Hearing Date ²	Resolved to Consolidate Voluntarily
DESERT BREEZE MOBILE HOME ESTATES	4/6/2018	6/12/2018	9/5/2018	
ROSAMOND CSD				
60TH STREET ASSOC. WATER SYSTEM	12/15/2017	6/12/2018	9/5/2018	
FIRST MUTUAL WATER SYSTEM				
LUCKY 18 ON ROSAMOND, LLC				
ROSAMOND MOBILE HOME PARK				
ROSAMOND SCHOOL WATER SYSTEM				
ROSAMOND CSD				
MD#08 NORTH FORK	11/16/2017			✓
NORTH FORK UNION SCHOOL				
HILLVIEW WATER COMPANY	10/24/2017			✓
YOSEMITE HIGH SCHOOL				
CITY OF CERES ³	8/23/2017	5/30/2018	10/1/2018	✓
CERES WEST MOBILE HOME PARK				
SOUTH KERN MUTUAL WATER COMPANY	11/15/2016	7/10/2017	9/7/2017	
CITY OF BAKERSFIELD				
BLACK RASCAL WATER COMPANY	9/22/2016	12/8/2016		
CITY OF MERCED				
LAKESIDE SCHOOL	6/15/2016	2/16/2017	7/11/2017	
CITY OF BAKERSFIELD				
OLD RIVER MUTUAL WATER COMPANY	6/15/2016	7/10/2017	9/7/2017	
CITY OF BAKERSFIELD				
MADERA COUNTY MAINTENANCE DISTRICT #19	6/15/2016			✓
PARKWOOD				
CITY OF MADERA				

Water Systems	6-Month Consolidation Letter	Public Meeting Date ²	Public Hearing Date ²	Resolved to Consolidate Voluntarily
PRATT MUTUAL WATER COMPANY	8/15/2015	3/3/2016	3/17/2016	
CITY OF TULARE				
SOULTS MUTUAL WATER COMPANY ⁴	8/18/2015	11/14/2017	11/28/2017	✓
City of Tulare				

¹As defined in SB 88

²Meeting completed or scheduled

³Voluntary negotiation period extended due to City's 1,2,3-TCP violation.

⁴As an interim measure Soult's MWC is purchasing water from the City of Tulare through a wholesale agreement.

APPENDIX D
SMALL WATER SYSTEM CAPACITY DEVELOPMENT STRATEGY FOR FYS 2019-21
Addendum to the 2000 Capacity Development Strategy

**STATE WATER RESOURCES CONTROL BOARD
SMALL WATER SYSTEM CAPACITY DEVELOPMENT STRATEGY FOR FYS 2019-21**

Addendum to the 2000 Capacity Development Strategy

DISCUSSION

This document is an addendum to the State Water Resources Control Board's (State Water Board) water system Capacity Development Strategy, which aims to increase the ability of public water system operators, managers, and decision-makers to consistently operate, maintain and manage their public water systems in a manner that protects public health. Although the State Water Board coordinates activities to increase technical, managerial, and financial (TMF) capacity for all public water systems, the State Water Board has recently placed a high priority on small and/or disadvantaged communities which face specific challenges related to their drinking water systems. This addendum places a special focus on these communities' water systems and spans three fiscal years, a time period that coincides with the federally required triennial capacity development report to the governor. As goals change and additional needs are identified, the State's baseline capacity development strategy will be revised and updated.

Small and/or disadvantaged communities face specific challenges related to their drinking water systems. Such communities lack the capital and economies of scale to maintain their water system, to conduct necessary compliance monitoring, to strategically plan for water system improvements, and/or to implement projects that correct violations of drinking water standards. They also often have difficulty obtaining and retaining not only qualified operators, but managers, board members and administrative staff.

The State Water Board makes extensive efforts to support water systems through capacity development. However, the State Water Board also recognizes that the significant responsibility and costs to operate a public water system are often overwhelming for small water systems with poor economies of scale, particularly in financially disadvantaged communities. As a result, the State Water Board highly encourages voluntary consolidation, the joining of two or more water systems, whenever feasible. Prior to having mandatory consolidation tools and strong incentives for voluntary consolidations, the State Water Board documented an average of approximately four consolidations per year. However, since the Legislature provided the State Water Board with stronger tools, over the last two years the State Water Board has consolidated over 100 failing water systems with nearby functioning water systems.

Somewhere between a quarter and a third of small water systems failing to meet drinking water standards are within reasonable piping distance to a larger water system. Many small water systems are surrounded by or adjacent to another larger water system. In places where proximity to a nearby well-managed larger water system is challenging, managerial consolidation can still result in the smaller water system obtaining the benefits from economies of scale. Consolidations are best achieved when voluntarily pursued by

the water systems. However, it is often necessary to bring them together to discuss consolidation and work through political hurdles and impacts to water rates, particularly if the small system rate is artificially low because they have not been including infrastructure replacement and other emergency reserves in their rate structure. Thus, a large amount of work is needed to assist the consolidation effort even if it is voluntary.

Although the State Water Board has made significant progress in closing the gaps that have led to some communities having unsafe drinking water, significant issues remain. Over 1 million Californians across the state still lack access to safe drinking water at their homes, schools, and businesses. Thanks to the collaborative efforts of the governor, the Legislature and community advocates, there is now a reliable funding source for the next 11 years to address drinking water concerns in communities where drinking water problems have thus far proved challenging to address.

DRINKING WATER CAPACITY DEVELOPMENT STRATEGY

The U.S. Environmental Protection Agency (EPA) has delegated State primacy to the State Water Board for enforcement of the provisions of the federal Safe Drinking Water Act (SDWA), which requires the State to develop a strategy and address the five elements identified in the table below ([Handbook for Capacity Development, pg. 55](#)). Within the State Water Board, the Division of Drinking Water (DDW) oversees enforcement of drinking water standards and requirements of public water systems in California under the SDWA.

SDWA Elements
1 – Methods or Criteria to Prioritize Water Systems
2 – Factors that Encourage or Impair Capacity Development
3 – How the State will use the Authority and Resources of the SDWA
4 – How the State will Establish the Baseline and Measure Improvements
5 – Procedures to Identify Interested Persons

California’s Capacity Development Program strategy is comprised of 10 strategic goals and associated SDWA elements. The following table summarizes the goals and associated elements:

Table 1: Drinking Water Capacity Development Strategic Plan Goals for Fiscal Years 2019 - 2021

No.	Goal	SDWA Element(s)	Implementation
1	Reduce Water System Inventory through Consolidation	3	Ongoing
2	Increase Stakeholder Engagement and Understanding	5	Ongoing
3	Form a Capacity Development Coordination Team	3	1 st Quarter 2020
4	Identify High-Risk Water Systems in Order to Proactively Support Sustainability and Resiliency	1,3	2 nd Quarter 2020
5	Develop a Tracking System for Prioritizing and Tracking Progress of Projects	1,4	2 nd Quarter 2020

No.	Goal	SDWA Element(s)	Implementation
6	Evaluate and Expand Efficiency of Technical Assistance Providers' Performance	2	2 nd Quarter 2020
7	Update DDW's Capacity Development Website		2 nd Quarter 2020
8	Enhance the Financial Review of Water Systems During Sanitary Surveys	2	3 rd Quarter 2020
9	Develop a Financial Capacity Tool	2	1 st Quarter 2021
10	Follow-Up on Newly Permitted Water Systems	2	1 st Quarter 2021

Strategic Goal 1 – Reduce Water System Inventory through Consolidation

The State Water Board has identified water systems with under 1000 connections statewide that are candidates for consolidations. Work on these water systems will be prioritized based on a number of factors including, types and numbers of violations, community median household income, and proximity to larger water systems for consolidation. Work will also be done to engage public participation and assist them in understanding their options for a consolidation. DDW is increasing the number of water system partnership and consolidation coordinators to expand this important strategic effort.

Strategic Goal 2 – Increase Stakeholder Engagement and Understanding

One of the keys to a successful drinking water program is public and community acceptance and understanding of the program. Public engagement efforts will have components of both outreach and education to communities. DDW will also continue to collaborate with national stakeholders, who provide valuable insight and suggestions which DDW can utilize to greatly improve the capacity development strategy and program.

Strategic Goal 3 – Form a Capacity Development Coordination Team

In order to have an efficient capacity development program, a higher level of collaboration between State Water Board divisions and outside agencies is needed. The DDW coordination team will include members of DDW-Program Management Branch, DDW-Field Operations Branch, Division of Financial Assistance-Technical Assistance, Division of Financial Assistance-Operator Certification, and the Local Primacy Agencies. The team will collaborate regularly to discuss factors that either encourage or impair capacity development and methods of achieving performance goals. This may include planning necessary trainings, reevaluating certified operator requirements, creating criteria to identify and prioritize technical assistance of water systems in need of improving technical, managerial, financial (TMF) capacity, and establishing the best use of technical assistance revenues and resources of the SDWA to achieve performance goals.

Strategic Goal 4 – Identify High-Risk Water Systems in Order to Proactively Support Sustainability and Resiliency

Public water systems that have ongoing violations or may be at risk for future violations based on historical compliance issues, aging infrastructure, TMF capacity, and/or other risk factors will be identified. The State Water Board was appropriated funding to implement a Needs Analysis on the state of drinking water in California, which will include the following activities:

- Identify community water systems in violation and at-risk,
- Identify state small water systems and domestic wells that are at-risk
- Perform a cost-analysis for interim and long-term solutions for those drinking water systems identified above.

DDW is creating new staffing positions that will be specifically tasked with continuing the important work of identifying and prioritizing at-risk water systems after the initial Needs Analysis is completed.

Strategic Goal 5 – Develop a Tracking System for Prioritizing and Tracking Progress of Projects

DDW, the Division of Financial Assistance, and the Office of Information Management and Analysis will work together to quickly deploy a tracking database tool that will be used for both assisting in prioritizing funding projects and tracking them once they are underway. The tool will help the State Water Board with getting projects funded and completed as well as provide information to the public on the progress of each project. The prioritization schema will assist regulators and TA providers in providing services in an efficient, transparent and effective manner.

Strategic Goal 6 – Evaluate and Expand Efficiency of Technical Assistance Providers' Performance

There is a lack of knowledge regarding how the contracted TA providers are performing. Water system and DDW-Field Operations Branch feedback about technical assistance services. DDW will begin implementing surveys that will allow identification of which activities and/or organizations encourage capacity development most effectively and sustainability. Based on the surveys and input from District offices, DDW will provide suggestions to the technical assistance providers on where to improve their services, marketing and/or activities. DDW will also work with technical assistance providers to help increase attendance to trainings on very important, but less understood topics such as financial capacity.

Strategic Goal 7 – Update DDW's Capacity Development Website

DDW's Capacity Development website will be updated and maintained so that it can be more effectively used by the public and regulators. Additional information regarding asset management will be uploaded to educate water systems and promote more effective asset management.

Strategic Goal 8 – Enhance the Financial Review of Water Systems During Sanitary Surveys

Technical and managerial capacity are simply not possible when the financial capacity is not present. Therefore, more focus will be placed on the financial aspect of TMF. Many small water systems do not realize the precarious nature of their financial position, nor how it impacts their eventual ability to achieve drinking water standards as their infrastructure ages.

DDW's sanitary survey format will be enhanced to include more financial review and data collection; a financial questionnaire is being developed and will be finalized after the end of a pilot project under development. Financial information can be used in financial analysis, which may help with identifying high-risk water systems. DDW can then work on re-evaluating their TMF criteria and assessment as well as update TMF guidance for water systems. Staff will be provided comprehensive training on how to incorporate financial review into their inspections.

Additionally, the 2019 electronic annual report will include a question regarding asset management plans to obtain information regarding how many water systems are performing this work. It will also help DDW determine which water systems are lacking adequate asset management and could use further training or TA.

Strategic Goal 9 – Develop a Financial Capacity Tool

An initial financial capacity dashboard will be created by the University of North Carolina, Chapel Hill for community water systems between 500 to 3,300 connections as part of the Needs Assessment. This work will be used as a model for potential future development of ways to evaluate financial capacity.

As currently conceived, the tool will include an easy to read visual component for:

- adjusted operating ratio (cost recovery),
- annual water bill (water rates), including an affordability metric,
- comparison of statewide water bills assuming a median usage of 6 hundred cubic feet (HCF) (water rate comparison),
- percentage of water loss (unaccounted for water), and
- compliance status in the HR2W List.

Future work to expand this tool and or include technical and managerial components will be developed based on the outcome of this success of this work.

Strategic Goal 10 – Follow-Up on Newly Permitted Water Systems

DDW will review all water systems that were newly formed and permitted in Fiscal Year 2016-2017 and every fiscal year thereafter to ensure they adequately address all TMF elements that promote long-term sustainability. Each water system will be reviewed four and six years after permit issuance to identify any failures that are consistently occurring and whether these failures could have been prevented. This will allow DDW to modify its procedures as necessary to enhance permitting requirements for future water systems

applicants. This will help identify which TMF elements are often overlooked and will identify any need for policy or regulatory change.