California Department of Public Health
Safe Drinking Water State Revolving Fund

Annual Capacity Development Program Implementation Report

to the
United States
Environmental Protection Agency

State Fiscal Year 2006-2007

September 28, 2007

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NOTE: On July 1, 2007 the California Department of Health Services changed its name to the California Department of Public Health (CDPH). Even though the reporting period for this report is the State fiscal year from July 1, 2006 to June 30, 2007, all references to the department in this report will be "CDPH" to enhance clarity.

I. State Capacity Development Program Annual Reporting Criteria

A. New Systems Program Annual Reporting Criteria

1. Change in California's Legal Authority

The California Health and Safety (H&S) Code, Section 116525 requires any new water system to apply for and receive a water permit from the California Department of Public Health (CDPH) before it begins operation. H&S Code, Section 116540 provides authority to CDPH to issue or deny permits to operate a new public water system (PWS). To aid in implementation of this authority CDPH has developed a Capacity Development Strategy. This authority has not changed during the State fiscal year (SFY) 2006-07.

2. California's Control Points

As a component of the capacity development strategy in 2000, CDPH identified the water supply permit as the control point to prevent the formation of new non-viable PWSs. New PWSs must satisfy the mandatory technical, managerial, and financial (TMF) elements prior to the issuance of a permit to operate. Unresolved necessary TMF elements are listed on the water supply permit with completion dates as enforceable permit conditions. Compliance with recommended TMF elements is encouraged but not required. However, if specific concerns arise with a particular water system, the TMF elements can be made mandatory or necessary.

H&S Code, Section 116540(a) 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." No change has occurred to this process during the SFY 2006-07.

3. New Public Water Systems on the Significant Non-Compliers List

The community and non-transient non-community PWSs that are identified in PICME or by the regulators as new and have been issued a

water supply permit for the past three state fiscal years between July 1, 2004 and June 30, 2007 are listed below. A database is maintained for TMF assessments and staff evaluations that have been submitted and reviewed at CDPH headquarters. Included in this list are the new PWSs for which the TMF assessments have been reviewed by CDPH but may not yet have been entered into PICME. None of these water systems are on the United States Environmental Protection Agency's (EPA) Significant Non-Compliers List:

Fiscal Year	PWS Number	PWS Name
2004-05	2701726	Spence Rd #5
	2702336	Monterey Bay Nursery
	270613	Estancia Winery WE
	2702621	Iverson Rd WS #3
	2702643	Cypress Center
	3500919	Willis Construction
	3510007	Hollister/Sunnyslope WTA
	3710047	Campo Hills
	3901442	Tarditi Rentals
	4000805	Callender Grove MWC
	4000807	UNOCAL
	5010040	South San Joaquin Irrigation District
	5010042	Waterford-River Pointe
	5403119	Sunkist Growers, Inc.
	5403121	Tri-Wall Weyerhauser
	5710011	Wild Wings Golf Community
	0104012	Hosanna Homes
	4810033	Hines Nursery (Winters South)
	5410052	LSID – El Rancho
	4300996	Valley View Ranches
	1503537	CEMEX Construction Materials LP
	1503539	Inland Empire Truss Company WS
	1400525	Laws Town Inyo County
	2702616	Altman Plants WS #02
	2702639	Old Stage Rd WS #20
	2702615	Esperanza Rd WS
	3603610	Crystal Lake Property Owners
	4000806	Dioptics Water System
	5000553	Foster Farms-West Main Feedmill
	5201140	Antoinette Mutual Water Company

2005-06	2700856	Altman Plants WS #01
	2702620	Harrington Rd WS #07
	2000202	Yosemite Lakes Community Church
	4200943	Teixeira Farms – Frontier
	4010081	Woodlands Development
	5000555	Piranha Produce
	1700724	Parkland Mutual Water Company
	2300802	Harvest at Mendosas
	3500926	Denise & Filice LLC Shipping & Cooling
	3710049	Campo Border Patrol Station
	4300997	NASA Ames Research Center
	1000567	FCWWD #18 / Lakeview Estates
	2904008	Sierra Montessori Academy
	4000808	Monte Sereno Mutual Benefit Water
	4100604	Skylawn Inc
	4100605	Skylawn Inc
	5000552	Kiernan Business Center
	5200535	Live Oak Acres MWC, Inc
	5200524	Dave's Tractor
	5403126	Family Education Center
2006-07	3910029	Oakwood Lake Mobile Home Park
	4901327	Gold Ridge Pinot Winery
	4901326	Spooners Resort
	4901330	Madrona Manor
	4901332	Wine Country Ind Park – Bldg C
	1502645	Meadows of the Kern Mutual Water Company
	0410019	CSU Chico, University Farm
	0300086	Grace Fellowship Church
	1400528	Crystal Geyser Bottling Plant
	2100584	McElvoy Ranch Water System
	3107327	Hidden Falls
	4200947	Better Cooling Produce
	5000563	Elks Lodge 1282
	5200565	Richfield Elementary School

B. Existing Public Water System Strategy

1. Technical, Managerial, and Financial Capacity in Existing Public Water Systems

California's approved existing systems strategy assists existing PWSs in achieving and maintaining TMF capacity with a number of programs that are targeted primarily to small water system (SWS) sustainability. Activities that are designed to increase the TMF capacity of SWSs include:

a. TMF Assessments: In developing the California capacity development program, CDPH received input from its staff, PWSs, concerned agencies, and interested organizations in identifying 16 TMF capacity criteria that reflect a PWS's capacity to sustain viability. The TMF elements identified include System Description, Technical Evaluation, Certified Operators, Source Capacity Assessment, Operations Plans, Training, Ownership, Organization, Water Rights, Planning, Emergency/Disaster Response Plan, Policies, Budget Projection, Budget Control, Capital Improvement Plan (CIP), and Reserves.

The target audiences for the TMF assessments are PWSs that are new, have applied for SRF funding or are undergoing a change of ownership. The goal of the TMF assessment is to assure that these PWSs have the capacity to provide sufficient and compliant drinking water to their customers for the future. All of the current TMF assessment documents including forms and guidance information are posted on the CDPH Drinking Water Program web page for easy reference by PWS personnel, regulators, and other interested parties. These documents are updated regularly to reflect program priorities.

The TMF elements have been divided into mandatory, necessary, and recommended categories for each of the targeted types of water systems. Mandatory TMF elements must be completed prior to the issuance of the water supply permit. Unresolved necessary TMF elements are designated as permit conditions to be completed within an enforceable specified time frame. Recommended TMF elements are considered good practice and are encouraged but are not required.

b. Training Workshops: Under the direction of CDPH, the Rural Community Assistance Corporation (RCAC) has developed and presented free workshops throughout California targeting SWSs. During the SFY 2006-07 RCAC presented a total of 42 workshops averaging about 25 participants per

workshop. As always, water treatment and distribution operators received continuing education credits toward their certification upon completion of a workshop.

This year's workshop series consisted of eleven different titles that addressed the 16 TMF elements including the new online workshop series. Two of the eight workshop topics covered financial issues such as budgets, rate setting, asset management, reserves, and CIPs. Other topics presented in various workshops included system description, operation plans, emergency/disaster response planning, monitoring, and source capacity assessment as well as owner and board responsibilities that included water rights, policies, planning, and organization.

RCAC places an emphasis on integrated activities in their workshops that are designed to increase learning and expand interest. The content and presentation format of the workshops are updated frequently and the titles of the workshops are changed slightly over time for interest, but the TMF focus of the workshops remains constant. As always, the goal of the workshops is to provide information to help small water systems deliver safe, reliable drinking water to their customers and to demonstrate how to properly manage a water system for long-term viability.

RCAC is in the process of developing mechanisms to measure the actual changes that water systems have made as a result of attending the workshops. Evaluations by participants continue to consistently rate the workshops in the Excellent and Very Good range. A sampling of the comments provided with the evaluations is: "You covered almost everything I need to know. We need these classes. I always enjoy and get a lot out of these workshops."

c. Technical Assistance: Direct technical assistance (TA) is provided to SWSs that need assistance by CDPH and Local Primacy Agency (LPA) staff in conjunction with their regulatory oversight, and by third-party contractor program specialists. Third-party TA is provided by California Rural Water Association (CRWA) and RCAC. These groups utilize skilled program specialists who are certified operators or financial and managerial experts with years of experience working with water systems.

CRWA program specialists generally are referred to water systems that have been placed on the Assistance Referral List (ARL) by CDPH and LPA staff because they need assistance in completing applications for funding or TMF assessments, complying with drinking water standards, determining

appropriate rate schedules and reserves, meeting with water system customers in order to promote necessary rate increases, or solving other TMF concerns. The water system also may ask its regulator to be placed on the ARL in order to receive TA.

For SFY 2006-07, CRWA has provided assistance to 262 SWSs. The assistance has included such activities as helping with TMF assessments and funding applications, calibrating monitoring equipment, determining the locations of leaks, disinfecting distribution systems following bacteriological failures, and compliance with permit conditions and drinking water standards. This assistance has resulted in the submission of 65 TMF assessments, 38 SRF funding applications, and 25 bond law funding applications.

On the other hand, RCAC program specialists provide TA at the request of a water system that has attended one of the RCAC workshops. This provision of the RCAC contract allows a water system to be proactive about requesting and receiving TA even if they have not yet reached critical levels of noncompliance or infrastructure needs that would qualify them for placement on the ARL. During this fiscal year RCAC provided assistance to ten water systems primarily regarding water system financial practices.

A new contract has been developed this year with the University of California, Davis (UCD) to provide engineering services to SWSs that do not have the resources to hire an engineer to design the engineering report required for a funding program. This has allowed 20 SWSs to complete the application process that in the past would have been unable to submit a full application package.

d. Training Materials: During SFY 2006-07 under contract with CDPH, California State University at Sacramento (CSUS) worked on developing a basic course for prospective operators who have not graduated from high school. This course has been designed to help fill a need created by a large number of older certified operators throughout the state who are expected to retire in the upcoming years by increasing the pool of prospective operators. Not only will this book satisfy the high school graduation requirement, it will also be a good study guide to prepare students for the Grade I operators' certification exam. It is expected that this book will be available during the upcoming fiscal year.

e. Department of Public Health, Drinking Water Web Site: The CDPH web site offers a plethora of information regarding the capacity development program. These documents are reviewed and updated frequently. The CDPH drinking water web site address with the capacity development information is:

http://www.cdph.ca.gov/certlic/drinkingwater/Pages/TMF.aspx

All of the current TMF documents are posted on the web including the TMF assessment and staff evaluation forms for SRF projects, new PWSs, and changes of ownership for both community and non-community water systems as well as TMF guidance criteria and checklists. Tools useful in completing the TMF assessment and operating a water system also are posted on the web page including the five-year budget plan worksheet, model water operations plan elements, sample emergency notification letters, and the currently recommended emergency/disaster response plan template that includes information regarding bioterroism concerns. In addition, links to the web sites for CRWA, RCAC, and CSUS third-party contractors are provided including a refined link to the current RCAC training schedule.

f. Expense Reimbursement Grant: Cooperative Personnel Services (CPS) manages the expense reimbursement grant (ERG) program for CDPH that reimburses operators who work at community or non-transient non-community SWSs serving populations of 3,300 or less for costs relating to obtaining drinking water operator certification. This grant program will reimburse individuals for expenses incurred while obtaining operator certification including the cost of the specialized training courses, exam and certification fees, continuing education, and mileage to attend these activities up to 100 miles one way. Third-party contractors promote this program in their contacts with SWSs. This grant program assists SWS operators who could have difficulty meeting the operator certification requirements.

g. Advisory Groups: Throughout the creation of the capacity development program, CDPH has relied on the input of interested stakeholder groups including the CRWA, RCAC, American Water Works Association, Small System Interagency Outreach Committee (SSIOC), California Technical Assistance Providers (CalTAP), and CalTAP Workgroup.

This year SSIOC sponsored arsenic workshops in Visalia and Modesto. These were well attended by 75 persons representing 53 water systems, consulting firms, and local health departments.

Workshops included EPA, CDPH, and water organization presentations regarding potential solutions for arsenic maximum contaminant level violations as well as case studies of compliance success. Arsenic treatment vendors were also present. In addition, CalTAP has taken an active role in attempting to increase the usage of the ERG funds.

CDPH holds monthly Drinking Water Program Funding Policy committee meetings consisting of the Drinking Water Executive Staff, Department of Water Resources representatives, and CDPH legal and other drinking water staff. In addition, the SWS Committee meets quarterly and consists of representatives of the Regional Engineers, District Engineers, LPAs, and CDPH headquarters staff. These regular meetings afford the capacity development staff an opportunity to obtain input from the field staff regarding the effectiveness of the third-party TA contractors and the impact they have had with individual SWSs.

In addition, CDPH staff has participated in presentations at each of the eight 2007 Funding Fairs throughout the state which enabled PWS personnel to attend a one-stop shop to obtain information about various infrastructure funding sources including Safe Drinking Water SRF. This is especially helpful for water systems whose projects are too large or do not meet SRF criteria since it is possible to use funding from more than one source for a project.

2. Identification of Need for Capacity Development Assistance in Existing Public Water Systems

   California identifies PWSs in need of capacity development assistance with the following tools:

   a. Assistance Referral List: The primary system that California uses to address the need for capacity development in existing PWSs is the ARL. Assignments for CRWA program specialists to provide TA are derived from this prioritized list. This list of PWSs is generated by the District Engineers with input from CDPH and LPA staff based upon compliance concerns that regulators have determined from field inspections, monitoring reports, SRF projects, changes of address, or other issues.

      The ARL identifies five main concerns:

      1) Serious health deficiencies

2) Funding applications

3) Noncompliance with drinking water standards

4) TMF deficiencies

5) Waterworks standards

An added benefit of the ARL is that priority placement on the list does not necessarily follow the standard funding category priorities if the District Engineer feels an ongoing problem needs to be addressed.

b. TMF Assessment: Another tool that California uses to identify the need for capacity development in PWSs is the TMF assessment. The successful completion of a TMF assessment enables a water system to rectify potential weaknesses in their system that could result, if left unaddressed, in not being capable of providing drinking water that meets all standards to their customers in the years to come.

During SFY 2006-07, 93 TMF assessments have been counted for new community and non-transient non-community PWSs and for SRF projects. This number may reflect the TMF assessments that were completed for new systems in the past but had not been submitted for review.

The TMF assessments and staff evaluations for new community and non-transient non-community water systems and for SRF projects are sent to CDPH headquarters for review by the capacity development coordinator for completeness and consistency. A statewide database is maintained for the TMF assessments that track the number, type, and location of those completed.

The TMF assessment assists the capacity development program in identifying needs of PWSs in a number of modes:

1) CDPH and LPA regulators can use this tool to assist existing PWSs that have been identified with a compliance deficiency. When a PWS has demonstrated a need for assistance because it has not been able to consistently meet drinking water standards, the completion of the TMF assessment can be written into the permit as a dated permit condition with enforceable consequences. In this

situation the PWS could be placed on the ARL and receive TA from the third-party contractors on a prioritized basis.

2) The TMF assessment tool is also used to evaluate the capacity of PWSs that are changing ownership. This helps ensure that existing PWSs that change ownership have the capacity to viably operate on a sustained basis. Unresolved necessary TMF elements are listed on the permit with completion dates as enforceable permit conditions.

3) In addition, the TMF assessment is used to ensure that a new water system will have sufficient capacity to ensure a viable operation and that a system receiving a SRF loan will have sufficient capacity to repay the indebtedness as well as continue to operate viably.

c. Median Household Income Surveys: CDPH recognizes that some SWSs are very small and its median household income (MHI) determination may result in a determination that it is not a disadvantaged community and therefore is not eligible for financial relief. For this reason CDPH utilizes RCAC to perform focused median household income (MHI) surveys for the SWS. If this survey determines that the MHI is under the established threshold for disadvantaged community status, then the proposed project will rank higher on the project priority list and the SWS could qualify for better funding opportunities. During SFY 2006-07, RCAC completed 8 MHI surveys.

d. Local Primacy Agency Meeting: In April 2006, CDPH sponsored a two-day LPA meeting in which the capacity development program was discussed. LPAs were encouraged to disseminate information to SWS managers and operators about the free workshops that would be offered in their local areas. CDPH capacity development staff also offered to provide more in depth TMF training to LPAs that request it.

e. Baseline Assessment: During SFY 2006-07, UCD worked with CDPH and completed the development of an on-line baseline assessment tool called the TMF Tune-up that is designed to provide a guide for measuring the present status of TMF capacity for PWSs and for tracking the improvement over time of that capacity.

The TMF Tune-up is designed to be specific to California public water systems. Anyone else can access it by using fictitious system

numbers between 5900000 and 5900099. The web address for the TMF Tune-up is:

http://neien.des.ucdavis.edu/tmf/

The TMF Tune-up consists of 45 questions relating to the 16 TMF elements including inquiries regarding the type of ownership, organization, policies, water rights, system description, source water and production, monitoring, treatment, training, operator certification, operations plans, emergency/disaster response plans, budgets, rates, CIPs, infrastructure reserves, and the age and condition of wells, storage tanks, and distribution systems.

Upon completion of the TMF Tune-up, an Individualized Development Plan (IDP) will be generated instantly for each water system. This IDP includes a series of relative scores in each of the TMF categories as well as pertinent combined scores. In addition, the IDP provides a list of resources including free workshops, technical assistance, ERG, and links to various organizations and agencies that specialize in providing materials and services to drinking water systems.

It is hoped that the information gained from the TMF Tune-up will enhance the ability of CDPH to more accurately determine the effectiveness of its capacity development activities by detecting and recording changes in the management and operation of SWSs. It will enable CDPH to better plan future capacity development strategies and assistance to target systems with significant TMF capacity risk factors.

3. California's Approach for Providing Capacity Development Assistance

California has identified a number of approaches to identifying statewide PWS capacity concerns and capacity development needs:

a. CHALLENGE: Encourage PWSs to participate in the TMF Tune-up.

The TMF Tune-up began operation during SFY 2006-07; however, it has been challenging to encourage SWSs to participate. One of the incentives that were developed was that if an ERG-qualified operator takes the TMF Tune-up for his water system, CPS would send them the CSUS video and DVD training series entitled *Water Systems Operation and Maintenance* as an ERG expense. Unfortunately, this incentive has not created the desired influx of TMF Tune-up participants.

CDPH is continuing to explore strategies to encourage water systems to participate in the TMF Tune-up. One is to provide the technical assistance providers and trainers with an offline TMF Tune-up spreadsheet that can be completed on a computer without an on-line connection and then emailed to UCD at a later date for tabulation. Another strategy is to have the CalTAP organizations promote the TMF Tune-up at the same time that they conduct outreach activities for the ERG and their own programs.

b. CHALLENGE: Increase the number of operators participating in the ERG, increase the amount of reimbursements to qualified operators from the ERG, and provide training to operators in remote areas.

   This has been a huge challenge. During SFY 2006-07 CDPH enacted a major change in the disbursement of ERG funds. After EPA wrote a letter of support to CDPH, CDPH created a qualified operator ERG number that would enable that operator to attend a workshop or obtain materials by simply paying for them with their ERG number. The training vendor then would submit a claim to CPS for ERG payment.

   This new procedure resulted in a significant increase in the disbursement of ERG funds to qualified operators; however, CDPH recognizes that more can be done. CDPH is still not reaching the operators in the remote areas of the state or with the greatest need. In the coming year CDPH will be working on a CalTAP Strategic Plan that will address the overall goal of expanding ERG-qualified activities. One of the greatest challenges will be to develop a referral mechanism in which a water system, technical assistance provider, or a regulator can refer an ERG-qualified operator or prospective operator to a training vendor. CDPH hopes to develop an action plan that will enlist the assistance of all CalTAP organizations to inform operators of the ERG possibilities.

c. CHALLENGE: Develop a process to quantify the impact of the RCAC workshops.

   During SFY 2006-07 RCAC has been in the process of developing a mechanism to be able to measure how water systems have changed their procedures as a result of the training that they received in the RCAC workshops. A variety of questions, formats, and procedures have been tried this year. Hopefully, in the coming year quantifiable

results will be available to demonstrate the changes that water systems have enacted based on the information they have obtained.

d. CHALLENGE: Provide alternative training options for water system board members.

In recent years attendance has been lower at the RCAC Board Member Responsibilities workshops than at other workshops that they offer. One of the reasons for this is that board members often have other full-time jobs from which it is difficult to leave to travel and attend full day trainings. In order to accommodate this concern during SFY 2006-07 RCAC has developed and presented an interactive on-line Board Member Responsibilities workshop series whereby the participant committed to one hour a week for three weeks at either noon or 6 pm. Response to this new training format has been positive. By participant request future on-line workshops will double from one to two on-line hours. RCAC also expects to widen their list of course offerings with this new format. As with the traditional workshops, operator continuing education credit is available for the on-line workshops.

4. Review of the Implementation of the Existing System Strategy

CDPH has not completed an extensive review of the implementation of the existing system strategy during SFY 2006-07. Instead, the program is continually evaluated and minor adjustments are made to procedures and documents as needed in order to refine the procedures for assisting PWSs in acquiring and maintaining TMF capacity. For example, the *Policy and Procedures Manual for the State Revolving Fund Programs* was updated during SFY 2006-07 in order to refine the procedures for the issuance of SRF financing.

5. Modification to the Existing System Strategy

During SFY 2006-07 CDPH has not made modifications to the overall existing system strategy based on a review of the strategy. On-going capacity development program activities have been discussed earlier in this report.

II. Reporting Period and Submittal Dates

The annual implementation reporting period reflects SFY July 1, 2006 to June 30, 2007. This report will be submitted the United States Environmental Protection Agency Region IX by October 15, 2007.