



California Department of Health Services Capacity Development Strategy August 2, 2000

1. Summary

The California Department of Health Services (Department) has developed a strategy to guide a program of capacity development for public water systems in California. The overall goal of the 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.

The goal of the strategy is to effectively use the resources and legal authority of the Department to achieve the objectives of the Safe Drinking Water Act and augment the Department's existing public water system regulatory program. The strategy will be revised and updated as goals change and additional needs are identified.

2. Purpose

The Federal Safe Drinking Water Act (SDWA) Amendments of 1996 authorize a Drinking Water State Revolving Fund loan program to help public water systems finance their infrastructure needs. Through this authorization, set aside funds are available to assist public water systems in acquiring and maintaining technical, managerial and financial capacity. The purpose of this strategy document is to describe how the Department will assist public water systems to meet this challenge and to guide the Department in integrating these new program elements with the existing public water system regulatory program.

3. Introduction and Background

Federal Safe Drinking Water Act

The 1996 Amendments to the SDWA 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 SDWA provides incentives for the states to develop programs to ensure that new public water systems demonstrate adequate levels of technical, managerial and financial capacity prior to gaining authority to operate.

In addition, the SDWA provides incentives for states to develop and implement a comprehensive strategy to improve technical, managerial and financial capacity in all public water systems in the state. 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. The SDWA also provides financial resources for developing and implementing the strategy.

Assembly Bill 21 Report (AB 21 Report)

In January 1993 the Department prepared a comprehensive report titled “Drinking Water into the 21st Century” for the California State Legislature. That report is also known as the Assembly Bill (AB) 21 Report. In that report, the Department concluded that small public water systems had a significant problem in complying with drinking water standards. These problems place populations served by these systems at an increased public health risk. The report concluded that a main reason for this problem was that small public water systems lacked adequate technical and financial resources to assure the reliable delivery of a pure, safe, and adequate water supply. In addition, the report concluded that the state lacked an effective institutional framework to provide technical and financial assistance and promote regional solutions to public water supply needs.

State Implementation of Safe Drinking Water Act

In late 1997, the California legislature enacted Senate Bill 1307 enabling the state to effectively implement the provisions of the Federal SDWA. This statute establishes a new financial assistance Safe Drinking Water State Revolving Fund (SRF) program, which provides funding for the state to build a comprehensive technical assistance program for small systems. This legislation also prevents the issuance of a water supply permit to a new public water system or to a system undergoing a change in ownership, unless that system demonstrates to the Department adequate technical, managerial and financial (TMF) capacity to ensure safe, reliable drinking water on a long term basis.

Local Primacy Agencies

In California, the drinking water regulatory program is carried out by both the State Department of Health Services and the Local Primacy Agencies, under delegation agreements with the State. In this strategy document, the term “Department” generally refers to both the Department of Health Services and the Local Primacy Agencies unless indicated otherwise.

Development of Technical, Managerial and Financial Capacity Criteria

The Department has developed TMF capacity criteria based on guidance provided by the U.S. Environmental Protection Agency (EPA), experience gained in the Department’s regulatory program, input from Local Primacy Agencies and experiences of other states. These criteria were developed with substantial input from a stakeholders group including a technical advisory committee comprised of representatives from a wide range of stakeholders. The criteria are currently being used to carry out the program in California.

Current Status of TMF Capacity Development Program

TMF Capacity Requirements for New Public Water Systems and Ownership Changes

The Department 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 in order to obtain a water supply permit. The Department has established the

water supply permit as the control point to ensure viable new public water systems and in applying the TMF criteria effectively to systems which change ownership.

TMF Capacity Requirements as Elements of Enforcement Actions

The Department has required some public water systems to improve TMF capacity as a provision of compliance actions. These compliance actions are undertaken as a result of actual or threatened violations of State regulatory requirements by a public water system. This includes compliance actions undertaken against systems that are identified as being in Significant Non-Compliance (SNC) pursuant to the definition of SNC by EPA.

Voluntary TMF Capacity Development Program

The Department will build a program that many public water systems will choose to participate in on a voluntary basis because of perceived benefits of the program. Public water systems that choose to improve their TMF capacity will be able to more consistently comply with regulatory requirements.

Applying TMF Criteria under the Drinking Water State Revolving Fund Program

In the past, water system improvement loans have often been used to fund water system facilities without significant attention being given to the capability of the water system to consistently achieve compliance once the water system facilities are completed. Public water systems that receive funding under the SRF program are required to demonstrate or develop adequate TMF capacity.

The first round of funding commitments under the SRF was completed in 1999. The Department evaluated the TMF capacity of the applicants with respect to the TMF criteria. The Department is continuing to evaluate the TMF capacity of applicants for funding under the SRF.

Development of TMF Capacity Criteria

The Department has developed criteria for evaluating the TMF capacity of public water systems. The Department developed these criteria with direct assistance and input from a technical advisory committee. These criteria have been used by the Department to build an effective, consistent and uniform program statewide.

4. Building a Strategy – Federal Requirements

Under the SDWA Amendments, EPA grants the states the flexibility to develop a capacity development strategy that meets the needs and resources within each state. However, EPA requires that each state consider, solicit public comment on, and include as appropriate five specific elements in the capacity development strategies. These five elements are listed below along with a description of how the Department intends to address each one.

(Note: The italicized sections of text are excerpts from the EPA document “Handbook for Capacity Development: Developing Water System Capacity Under the Safe Drinking Water Act as Amended in 1996”)

A. Methods or Criteria to prioritize systems

These include methods or criteria that could be used to identify and prioritize public water systems most in need of improving technical, managerial and financial capacity.

The Department will use the following methods of identifying and prioritizing public water systems that are most in need of improving technical, managerial and financial capacity in California.

- **Utilize Data on Water System Violations**

The Department will generate lists once each quarter of violations of State regulatory requirements by public water systems. These lists will be analyzed to determine the public water systems that have had the greater frequency of violations and severity of violations. These systems will achieve a high priority for development of TMF capacity. These systems may be required by a compliance action to improve their TMF capacity.

- **Utilize Information from Water System Inspections**

The Department's data system tracks the type and severity of deficiencies that are found during the water system inspections. This data will be used to develop a list of public water systems that have had the most significant deficiencies. This list will be used to identify and prioritize systems in need of improving TMF capacity.

- **Utilize the SRF Priority List**

The SRF Project Priority List is based on water system deficiencies of the systems that choose to submit pre-applications. This priority list is updated annually based on pre-applications received by the Department. In many cases these systems will be in need of developing additional TMF capacity. The systems that proceed with the SRF loan program will receive a TMF capacity assessment and will be offered technical assistance to develop TMF capacity. The systems that do not proceed with the SRF loan program will continue to be subject to enforcement action and will be prioritized for development of TMF capacity.

- **Utilize the Knowledge of the Drinking Water Program Staff**

The regulatory staff of the Department develops an intimate knowledge of the public water systems within their area of responsibility. This knowledge is based on experience reviewing the system facilities and personal contact with the system operators, managers and customers. This staff knowledge will be used to develop a list of systems in each District that are in need of developing additional TMF capacity.

In many cases, public water systems have consistently maintained compliance with State regulatory requirements but are known to have serious underlying deficiencies that compromise their ability to comply. A list of systems that fall into this category will be obtained from each District office on a routine basis. These systems will be targeted for development of additional TMF capacity.

B. Factors that Encourage or Impair Capacity Development

These factors include the “institutional, regulatory, financial, tax or legal” factors that exist at the Federal, State, or Local level that encourage or impair capacity development.

The Department conducted a comprehensive evaluation of the drinking water program in California that culminated in the preparation of the AB 21 Report in 1993. The report identified six main issues that contribute to the high rates of noncompliance of small public water systems in comparison with large systems. These six issues are as follows:

- Financial and Technical Limitations
- Regulatory Program Issues
- Planning and Permitting Issues
- Operation and Maintenance Issues
- Outreach Programs
- Regional Solution Issues for Small Water Systems

The Department will utilize staff, a third party contractor and a technical advisory committee to review and update the findings of the AB 21 Report to reflect the changes that have occurred in the program since 1993. The technical advisory committee will include stakeholder representatives. The Department will prepare a report by June 30, 2001 detailing the review and update of the findings of the AB 21 Report. That report will also incorporate an update on each of the five elements of this section of the report.

C. How the State will use the Authority and Resources of the SDWA

Describe how the State will use the authority and resources of the SDWA or other means to:

- *Assist public water systems in complying with National Primary Drinking Water Regulations.*
- *Enhance technical, managerial and financial capacity by encouraging the development of partnerships between public water systems.*
- *Assist public water systems in the training and certification of their operators.*

The Department will continue and expand the use of the authority and resources of the SDWA to carry out an effective program of TMF capacity development. The following are the specific elements of this effort.

Integrating TMF Capacity Development with Other Program Elements

The Department’s drinking water regulatory program carries out a variety of activities to ensure public water systems are complying with applicable laws and regulations. The goal of developing TMF Capacity will be further incorporated into the following program activities:

- Permit Issuance
- Sanitary Surveys (Inspections)

- Compliance Activities
- Monitoring
- Enforcement
- Source Water Protection

Technical Assistance

The Department is strengthening and expanding its programs of technical assistance. The SDWA provides funding for technical assistance to small water systems which each state may choose to utilize. The Department has chosen to utilize this funding to augment the existing resources used to provide technical assistance. The amount of this additional funding is approximately \$1.5 million dollars annually.

Issuance of Water Supply Permit

The Department has established the issuance of the water supply permit as the control point in implementing the TMF capacity requirements. By December 30, 2000 the Department will have completed the revision of the Staff Permit Policy and Procedure Manual. This manual will help ensure that effective and uniform procedures for permit issuance are followed statewide. In early 2001, training will be provided on the implementation of the revised permit procedures.

Mandatory TMF capacity program

As mentioned earlier in this report, since January 1, 1998 the State has implemented a program that requires all new public water systems and those changing ownership to demonstrate adequate TMF capacity. The Department will evaluate this program to determine the effectiveness of the program and any necessary actions to improve it.

TMF Requirements as Elements of Enforcement Actions

The Department now uses enforcement actions to require targeted water systems to improve TMF capacity in areas related to the violations (or threatened violations) of State regulatory requirements that have occurred. The Department intends to use this authority as appropriate.

D. How the State will Establish the Baseline and Measure Improvements

The state should describe how it will establish a baseline and measure improvements in the capacity of public water systems under their jurisdiction. This element provides the tools that State primacy agencies must have to produce and submit a report to their Governors on the efficacy of their capacity development strategy and progress made toward improving the technical, managerial and financial capacity of public water systems in their State.

Under this element, the Department identifies the information and methods that will be used to establish a baseline and measure improvements. The following information and data will be used to establish this baseline and measure water system improvement:

Water System Violation Data

The Department currently generates an annual report on water system violation data. This report summarizes the violation data collected during the year. The report will be expanded into a more detailed format so that it can be used to identify important factors and trends. The revised report will provide sufficient detail for both the baseline and for measuring improvement.

Current levels of certified operators

The provision of certified operators is a key factor in a public water system improving its' TMF capacity. A component of the baseline will be determining the current number of public water systems that provide certified operators for their systems. This component will also look at the certified level of these operators relative to the level of certification required for the system. The Department will complete a survey and prepare a report by June 30, 2001 of the current number of certified operators that are provided by public water systems. The Department will continue to track the parameters measured in the survey over the next several years.

State regulations slated to change in January 2001 will include a requirement for certification of distribution system operators. The certification of distribution system operators is not currently required in California.

Improvements in Operational Procedures / Operations Plans

Many violations each year can be attributed to inadequate system operations. These violations will be reduced if system operators develop and follow good operational procedures. The Department will provide guidance and technical assistance aimed at improving operations. The emphasis will be on the development of improved operational procedures that will be documented in an operations plan. The number of operations plans developed each year will be tracked and used as a measure of improvements in TMF capacity. A comparison will be made of the number and type of violations that occur in systems that have prepared a detailed operations plan and those that do not have an operations plan.

Current levels of Technical Assistance Provided

Technical assistance is currently provided by a variety of entities including public water systems, private individuals and entities, various water industry associations, educational institutions and Department regulatory staff. The Department will utilize a technical advisory committee to prepare a report, by January 30, 2001, that identifies and quantifies the level of technical assistance that is provided statewide. The preparation of this report will include input from representatives of small public water systems statewide.

Number of TMF Assessments Completed

The Department will track the number of TMF capacity assessments completed each year. A comparative report will be prepared each year comparing the compliance levels of the water systems that have received these assessments systems.

Meeting the TMF Criteria

The Department is currently developing a database that will enable tracking of TMF criteria for all public water systems. This database should enable tracking to begin by July 1, 2001. This data will enable detailed tracking of the levels of TMF capacity achieved by all public water systems.

E. Procedures to identify interested persons

States should identify and involve stakeholders in the creation and implementation of their capacity development strategy.

To identify and involve stakeholders, the Department will continue to utilize a variety of techniques and resources. The development of the strategy to date has been accomplished with input from a technical advisory committee with representatives from public water systems, various State and Local agencies and technical assistance providers. The Department intends to continue and expand the use of the technical advisory committee.

Development and implementation of the strategy has included the following additional stakeholder identification and involvement:

Public Participation Workshops

The Department conducted four public participation workshops on the strategy in July, 2000. A summary of comments and questions received at these workshops is included in Section 6 of this report. With the assistance of a third party contractor, the Department will conduct an additional public participation workshop on the strategy in August, 2000. The Department will conduct additional public “focus group” workshops in 2001.

Internet

The draft strategy was posted on the Department’s Internet site with information on how to provide comments and feedback for interested stakeholders. The availability of the draft strategy on the Internet site was publicized to all public water systems in the State. All comments received were considered and responded to. The Department will continue to seek feedback in this manner and will expand this means of providing information to stakeholders and the general public.

5. Capacity Development Goals

The California Health and Safety Code (H&SC) declares that every citizen has the right to pure and safe drinking water. It also provided authority to the Department to ensure that the water delivered by public water systems meet this declaration. Public water systems, which develop TMF capacity, improve their ability to continuously provide water that is pure, wholesome and potable. The Department has placed a high priority on establishing a program of capacity development that aims to accomplish the following three broad goals:

- To assure that the statutory requirements are met for new public water systems and public water systems undergoing a change of ownership.
- Develop in all public water systems the TMF capacity to meet the declaration of the H&SC.
- Develop and utilize state/federal/local government and private party organization resources to build capacity in public water systems.

6. Program Implementation Plan & Schedule

In order to meet the identified goals and continue an effective implementation of the program, key activities and actions have been identified. The overall coordination and completion of these activities is the responsibility of the Department's Capacity Development and Technical Assistance Unit. The successful completion of these activities requires the work and assistance from the Department's District Office Staff, the State Revolving Fund Policy Committee as well as Headquarters Staff. The following is a list of the identified activities and actions (along with the completion date where appropriate):

<u>Task No.</u>	<u>Description of task</u>	<u>Projected completion date</u>
1.	Conduct a review and evaluation of TMF Assessments conducted on projects that have been funded under the State Revolving Fund Loan Program. Submit findings to EPA.	September 30, 2000
2.	Conduct additional public participation workshop. This workshop will be conducted by the Rural Community Assistance Corporation in conjunction with Department staff.	August 30, 2000
3.	Perform an evaluation of TMF Assessments completed for new public water systems from October 1, 1999 to September 30, 2000. Submit findings to EPA.	October 30, 2000
4.	Prepare a baseline report measuring program progress using the criteria identified in the strategy.	June 30, 2001
5.	Complete revisions to Permit Policy and Procedures Manual. Distribute the Manual to all Districts and Local Primacy Agencies.	December 30, 2000
6.	Provide training for staff of both Districts and Local Primacy Agencies on the Policy and Procedures Manual to help build consistency and thoroughness statewide.	March 30, 2001

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| 7. | Provide updated training for staff of both Districts and Local Primacy Agencies on the TMF program to help build consistency and thoroughness statewide. | March 30, 2001 |
| 8. | Complete an updated report on the status of the key findings from the AB21 report. | June 30, 2001 |
| 9. | Hold quarterly meetings with the Department's Capacity Development Work Team to review program progress and make decisions on program implementation | Ongoing |
| 10. | Hold quarterly meetings with a technical advisory committee to discuss implementation of the strategy and any revisions to the strategy. | Ongoing |

7. Public Input and Response

Public Meetings

A total of four public meetings were held on July 17, 2000 and July 20, 2000 in Santa Rosa and Lodi, respectively. The five mandatory elements of the strategy were presented and discussed.

Comments and Responses

The comments and questions received at the public meetings to discuss the strategy have been summarized and listed below along with the Department's response. These comments and questions were received orally. Some editing and paraphrasing of the comments and questions has been done for purposes of clarity.

1. **Comment:** *"The TMF requirements for ownership changes are not fair to all systems. Larger water systems such as cities and mutual water companies routinely have major changes in leadership such as board members. This requirement will primarily affect non-community water systems."*

Response by Department: We will discuss this comment with our Capacity Development Work Team and Management Staff. The currently requirement does apply only to changes of ownership. Legislation would be required to expand or change this.

2. **Comment:** *"Some people will only comply when forced to. The Department should consider requiring all systems to comply with the Technical, Managerial and Financial (TMF) Criteria by a specific date such as January 1, 2010."*

Response by Department: The level of success of the current program, which includes required and voluntary elements, will be a factor in determining the need to extend these requirements further. We will discuss this comment with our

- Capacity Development Work Team and Management Staff. This would require legislation.
3. **Comment:** *“The Capacity Development Strategy references a 1993 Report regarding high rate of violations by small public water systems in California. More details, including examples and case histories would be helpful in gaining an understanding of the extent of the problem.”*
Response by Department: The report referenced (AB 21 Report) contains additional more detailed information for years prior to 1993. The Department’s Internet site includes a violations report for 1997. The report is located at www.dhs.cahwnet.gov/ps/ddwem/publications/violations/violrpt.html. We intend to provide more detailed compliance statistics via our internet site as soon as possible.
 4. **Comment:** (Regarding the methods for establishing a baseline) *“Wouldn’t the findings from the Department’s inspections of public water systems provide the same information as the violations data?”*
Response by Department: The majority of the findings and associated requirements for corrective actions that result from water system inspections are sanitary deficiencies rather than regulatory violations. Most of these inspection findings are associated with potential violations and physical deficiencies that could result in a violation. However, in some cases there are violations noted during a water system inspection. The field staff does code these violations into the data tracking system so they would help to establish the baseline.
 5. **Comment:** *“Requiring water system operators to pursue continuing education requirements would tend to develop capacity in water systems”*
Response by Department: We agree. The ability and enthusiasm of the water system operator is one of the most important factors in successful water system operation. The State’s new Operator Certification Regulations will require continuing education in order to maintain certification as a water treatment and water distribution system operator.
 6. **Comment:** *“The Department’s field staff should be considered as a valuable source of information for public water systems on financial capacity”*
Response by Department: Most of our staff does not have extensive expertise in the financial aspects of public water systems. However, some of our staff have developed a certain level of expertise in this area. We will soon formally evaluate the level of expertise of our staff in order to identify additional training needs.
 7. **Comment:** *“The Department should be careful not to engage in excessive ‘hand-holding’ of public water systems. Some people will only comply when forced to so.”*

- Response by Department:** The foundation of the Department’s public water system regulatory approach has traditionally been an effective oversight and enforcement program. One key goal of the Capacity Development program is to provide public water system operators with the tools necessary to facilitate compliance. The goal is that the Department’s enforcement program will be strengthened by this effort.
8. **Comment:** (Regarding the voluntary program of building TMF capacity): *It will be difficult to get a Board of Directors to make any commitment to a program that is not mandatory.*
- Response by Department:** We hope that the voluntary program for developing TMF capacity proves to be of sufficient value that public water system managers will choose to participate in any or all portions of the program.
9. **Comment:** *“Small water systems should be evaluated in a different manner than large water systems.”*
- Response by Department:** It has always been our intent that the evaluation of a system will vary somewhat with respect to the system size. As we gain experience in this program we will build consistency and thoroughness in the application of the TMF criteria with adjustments made for the size and complexity of the system.
10. **Comment:** *“The Department should consider providing a tangible incentive such as special permit or reduced monitoring to systems that achieve the TMF criteria.”*
- Response by Department:** We will discuss this comment with our Capacity Development Work Team, Stakeholders and Management Staff. While a reduction in monitoring requirements would not be a feasible incentive, we may be able to identify some other incentives that would appeal to water system managers, operators and decision-makers.
11. **Comment:** (Regarding prioritization of water systems): *“The Department should consider both the population served by a system and the degree of potential public health hazard in prioritizing systems that are most in need of developing TMF capacity”*
- Response by Department:** These two criteria will be an important part of our prioritization of systems.
12. **Comment:** *“The Department should make its website more user-friendly for both the public and water system operators.”*
- Response by Department:** We continue to build our website to provide useful and complete information to both the public and water system operators. We will continue to improve both the content and format of our website. Additional

technical assistance documents will be provided to both the public and water system operators in all areas of our program.

13. **Comment:** *“Lack of attention to regional issues impairs the ability of public water systems to find solutions to their problems and build TMF capacity.”*

Response by Department: Developing solutions to regional problems that affect public water systems is an important component of building TMF capacity in public water systems. We have included an action item to look more closely at this issue in our implementation schedule.

14. **Comment:** *“The requirements of the State Public Utilities Commission (PUC) directly conflict with the TMF criteria adopted by the Department. Specifically, the PUC will not allow a utility to meet the financial criteria as specified in the TMF criteria.”*

Response by Department: We will discuss this comment with our Management Staff to determine how we might address this question thoroughly. It is our intention to work closely with the PUC (and other interested agencies) in carrying out the Capacity Development Strategy.

15. **Comment:** *“The Department’s current method of collecting regulatory fees (i.e. fee-for-service) does not allow for the best use of staff time. Instead of spending time on a larger system that is operating in compliance, staff time might be better spent on a smaller system that is having trouble.”*

Response by Department: We are continuing to look at our fee structure to determine what modifications we believe are necessary to effectively run the program. Modifications to our fee structure require legislative action.

16. **Comment:** *“Industry newsletters can be used to effectively communicate with the water system operators and the water system industry.”*

Response by Department: We intend to continue to use and to expand the use of industry newsletters and other publications to effectively communicate with stakeholders.

17. **Comment:** *“The Department should consider a newsletter to public water systems to communicate program information.”*

Response by Department: We are considering to provide funds for a routine newsletter to all public water systems perhaps from the State’s Small Water System Inter-Agency Outreach Committee rather than from the Department. We would use of direct mailing and electronic distribution of the newsletter.

18. **Comment:** *“The Department should consider using a ‘Focus Group’ of water system customers to get direct input from the public”*

Response by Department: We will give this option serious consideration. Focus groups may be an effective means of expanding and getting more detailed public input.

19. **Comment:** *“To expand involvement in future public meetings, the Department should request one or more local public water systems to place an informative notice in with their local billings.”*

Response by Department: This may be an effective option to more directly reach the interested public. We may consider the use of this option in the future.

20. **Comment:** *“The Department should consider both the population served by a system and the degree of potential public health hazard in prioritizing systems that are most in need of developing TMF capacity”*

Response by Department: These two criteria will be an important part of our prioritization of systems.