California Department of Public Health (CDPH)
Drinking Water Program

Technical, Managerial, and Financial (TMF)

Criteria

For Public Water Systems

CDPH Funding Applicants
New Water Systems
Changes of Ownership

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Introduction

The 1996 federal Safe Drinking Water Act (SDWA) required states to incorporate technical, managerial, and financial (TMF) capacity into public water system operations. This requirement helps ensure that public water systems with TMF capacity have long term sustainability and are able to maintain compliance with all applicable drinking water laws and regulations.

In response to the federal TMF requirements, California enacted Section 116540 of the Health and Safety Code (CHSC) which 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.*

It should be noted that the California SDWA goes beyond the federal requirements by applying the TMF criteria and requiring TMF assessments for not only community water systems but also transient noncommunity water systems, water systems changing ownership, and water systems seeking funding from the State.

Use this TMF criteria document as a reference when completing the TMF assessment form located on the CDPH web site at:

http://www.cdph.ca.gov/certlic/drinkingwater/Documents/TMFcommunity/TMFCapAssessFrmCommSDWSRF.pdf

All of the Mandatory TMF elements must be completed prior to the issuance of funding for a CDPH funded project or prior to obtaining a new system or change of ownership water supply permit. The Necessary TMF elements must be addressed satisfactorily within a timeframe determined by the regulatory agency which typically would be six months after funding project completion or permit issuance. A TMF elements chart is provided below to illustrate the Mandatory and Necessary TMF elements needed for CDPH funding projects, new water systems, and changes of ownership.

Submit the completed TMF assessment form and attachments to the CDPH district office or the Local Primacy Agency (LPA) that regulates the water system. These regulators then will complete an evaluation to determine whether or not the system has adequate TMF capacity.

We recommend that the TMF documents be assembled in a three ring binder with the attachments kept as appendices in the back. Because particular information about water systems changes over time, this will allow documents to be updated easily. In order to maintain complete records of your system, keep copies of all of the documents

in this binder. Required documentation may be submitted electronically on a compact disk and attached to the TMF assessment in the appendix.

If system information has already been provided on the funding application or to the CDPH district office or the LPA, note the location of that information on the assessment form in the comments space. Update information as circumstances change.

CDPH is committed to helping systems qualify for funding. Upon request CDPH will provide assistance to small water systems for completing a funding application and the TMF assessment forms. The funding applicant should complete as much of the information on the forms as possible. All information needs to be supplied in a timely manner. In addition, small water systems that cannot demonstrate adequate capacity can be provided with direct technical assistance if requested.

TMF Elements Chart

M - Mandatory: Compliance with the element must be completed prior to the issuance of funding or a new system or change of ownership water supply permit.

N - Necessary: Compliance with the element must be addressed satisfactorily within a timeframe determined by the regulatory agency which typically would be six months after funding project completion or permit issuance.

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

TMF Elements

1. Consolidation Feasibility
   [Funding Projects, New Systems, Change of Ownership - ***Mandatory***]

   Many operational and economic benefits are realized by water systems when they consolidate. Each public water system applying for construction funding or a refinancing loan must perform an evaluation, including costs and feasibility, of physically consolidating with another public water system. Guidelines for when a consolidation is most feasible include, but are not limited to:
   - when one of the water systems is located within another's established service area,

- when one of the water systems is within an existing General Plan's zone of influence of the other,
- Or when the water system is within five miles of another public water system.

If the water system applying for construction funding or a refinancing loan is a "small community water system" (which is defined as: a community water system that serves no more than 3,300 service connections or a yearlong population of no more than 10,000 persons) and the water system is considered "disadvantaged" (which is defined as: the entire service of area of a community water system, or a community therein, in which the median household income is less than 80 percent of the statewide average), consolidation is *highly encouraged* and the water system may be allowed funding for a consolidation feasibility study and/or may be giving priority when seeking construction funding.

In order to determine the feasibility of consolidating into another public water system, submit a consolidation assessment that includes the following:

a. List of all, or at least one large water system within five miles of the system.

b. A description of the feasibility of consolidating into another system on the list that includes the results of any consolidation discussions conducted with at least one system within the five mile radius.

2. System Description
[Funding Projects, New Systems, Change of Ownership - ***Necessary***]

Provide a system map that illustrates the location of all of the components of the water system including the:

a. Current service area
b. Sources
c. Treatment facilities
d. Pumping stations
e. Pressure zones
f. Storage tanks
g. Piping with valves and hydrants noted
h. Potential contamination hazards
i. Projected ten-year growth boundaries

3. Certified Operators
[Funding Projects – *Necessary*; New Systems and Change of Ownership - ***Mandatory***]

CDPH or the Local Primacy Agency (LPA) will identify the grade of certified distribution and treatment operators that will be required for the system. Provide copies of current certificates with names and grades as documentation that the

distribution and treatment operators are certified for the appropriate level that is required for the water system.

If a contract operator is hired to perform the duties of a certified operator, provide a copy of the operator's treatment and /or distribution operator certifications and a copy of the contract that describes the specific duties for which the operator will be responsible, the time to be spent serving the water system, and the procedures to be followed in the event of complaints, compliance discrepancies, or emergencies.

4. Source Capacity

[New Systems, - ***Mandatory****;* Funding Projects and Change of Ownership –***Necessary***]

At all times a water system must have the capacity to meet the system's maximum day demand as described in California Code of Regulations, Section 64554. Additionally, it must ensure that it has suitably adequate sources of water to serve the needs of its constituents in the future. The water system must submit documentation which demonstrates that it has and will have a sufficient water supply.

The possibility of drought conditions impacting the water supply must be addressed. The system needs to develop a water conservation plan to address potential drought conditions.

In order to accurately measure the system's actual water usage, a meter needs to be placed on each service connection. The system needs to develop a plan to install water meters on all connections as well as a master meter on each source in order to accurately measure water production and consumption. Additionally, a CDPH funded project must include conditions that the system will incorporate provisions into its operating procedures and expenses to read the meters and to charge rates based on usage.

All sources and surrounding areas need to be protected from potential contamination hazards or threats. Provide a map of the existing service area and surrounding locations. Include the location of all water sources as well as sources of potential contamination such as waste disposal sites, landfills, feedlots, underground storage tanks, out-of-service wells, and other potential contaminants. Additionally, provide documentation that demonstrates the water sources are protected from vandalism, tampering, contamination, and other threats.

In order to ensure that a sufficient source of water will be available for existing and potential water consumers, the system needs to develop a ten year potential growth plan consistent with local land use plans a projected water demand for that period of time, and start the process to obtain additional water rights for new water sources if needed.

5. Operations Plan

[New Systems, - ***Mandatory****;* Funding Projects and Change of Ownership –***Necessary***]

Provide an operations plan that describes all of the activities needed to maintain the system in compliance with all standards. This plan should describe the daily, weekly, monthly, and yearly tasks that would enable another qualified operator to assume the operation of the system in an emergency. The plan should also describe non-routine activities such as positive analytical results, responses to complaints, emergency operational practices, record keeping, and other duties.

Operations plans need to be updated whenever changes occur. Templates for a number of sample operations plan can be found on the CDPH web site at

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

6. Training

[Funding Projects; New Systems, and Changes of Ownership – ***Necessary****]*

Competent management and operation of a water system is critical to providing a safe and reliable water supply to system customers. Training needs to be provided to all water system staff including the governing board in order to ensure that everyone associated with the water system has the knowledge to competently comply with existing requirements and to be informed about new compliance requirements, new technologies, and newly identified hazards.

Submit a plan describing the training that will be provided for:

a. Certified operators: Contact hours needed to maintain operator certification at the required grade for the system and other related training.
b. Governing board: Training that covers board roles and responsibilities including ethics and financial management.
c. Other staff: Pertinent training to enable all staff to competently perform activities necessary to the operation and maintenance of the system.

7. Ownership

[Funding Projects; New Systems, and Changes of Ownership – ***Mandatory****]*

Ownership of a water system must be clearly identified. Documentation may be submitted as hard copies or electronically on a compact disk. Indicate the type of system ownership such as sole proprietorship, partnership, corporation, mutual, governmental agency, or other formation type.

Include copies of legal papers for corporations, districts, partnerships, mutual's, and other organizational entities such as incorporation articles, by-laws, and governing ordinances.

Provide documentation of ownership for all components of the water system. This includes deeds and other documentation for system owned property including land, buildings, wells, storage tanks, treatment facilities, and other components needed for

the operation of the system. A copy of the deed for the well location will help document both ownership and water rights.

If land or system components are not owned by the water system, provide a copy of the easement or long term use agreement use that specifies the duration of the authorization in order to demonstrate that the system will provide a reliable source of water to its customers. Note that for loan projects the long term use agreements for easements, purchased water, system facilities, land, and any other water system component must extend for the term of the loan.

If the water system is under temporary ownership such as a developer, describe the timing for the change in ownership and the contact information for the eventual owner.

If the owner of the water system has owned or managed any other public water system within the last ten years, list these systems by name and number.

For a sole proprietor submit a plan that describes how the system will continue to be operated in the event the owner becomes incapable of carrying out this responsibility.

Disclose any encumbrances, trust indentures, bankruptcies, decrees, legal orders, or other items that may affect the owner's control of the water system.

8. Water Rights

[Funding Projects; New Systems, and Changes of Ownership – ***Mandatory****]*

A water system must have a legal right to the quantity of water necessary to assure an adequate and reliable drinking water supply. Provide information that describes the legal basis and authority for the diversion, extraction, or purchase of water. This may include documents such as permits, licenses, letters of authority, or other agreements showing all water rights owned or controlled by the system.

Note that for water systems designated as groundwater under the direct influence of surface water the water rights could be described as either groundwater or surface water depending upon the surface water designation by the State Water Resources Control Board (SWRCB).

Be aware that for CDPH funded projects the long term use agreements for purchased water must extend for the life of the loan or a minimum of 20 years for grant funded projects

To document water rights, provide the following:

a. List the current and emergency water sources that will be used to operate the system including groundwater, surface water, groundwater under the influence of surface water, purchased water, and any other sources.

b. Describe the long-term availability of the sources used by the water system to meet a projected 10-year water demand.

Groundwater

a. Unadjudicated Basin:

- Provide a statement that the groundwater is extracted from a basin that is not adjudicated.

- Provide copies of the deeds for the parcels of each unadjudicated groundwater source used by the system. Electronic format is acceptable.

b. Adjudicated Basin: Attach the deed for the parcels of each adjudicated groundwater source that notes the adjudication or provide documentation of the Basin Water Master's terms of the adjudication as they relate to the water system's right to extract water from the adjudicated basin.

Surface Water

Indicate the type of water rights the water system holds for surface water. Note that an application to the SWRCB does not document water rights.

a. Appropriative
   1) Pre-1914
   2) SWRCB Permit or License
b. Riparian

Appropriative

- If Pre-1914, provide a statement that water rights were established prior to 1914.
- If after 1914, provide a copy of the SWRCB water rights permit or license.

Riparian

Provide a statement that water is derived from a surface source pursuant to a riparian right and include a map showing location relative to extraction point.

Purchased Water

- Provide a copy of the water service agreement for purchased water that specifies the duration of the authorization.

9. Organization

[Funding Projects - ***Necessary***; New Systems and Changes of Ownership- ***Mandatory***]

In order to establish the lines of authority and communication between employees and management including the governing board, managers, certified operators, and clerical staff, provide a:

a. Structural organizational chart for positions associated with the water system. Specify the frequency of board meetings where appropriate.

b. Provide another chart that lists the names and phone numbers of the specific people who fill those positions.

c. Include on the organization chart any contract certified operators the system may utilize. Indicate the level of certification and the number of hours for which the services of a certified operator are contracted.

10. Emergency Response Plan

[Funding Projects and Change of Ownership –***Necessary****;* New Systems, - ***Mandatory***]

In order to provide reliable water service and minimize public health risks from unsafe drinking water during emergencies, submit an emergency response plan with clearly defined response procedures. A sample emergency response plan template is located on the CDPH website at:

http://www.cdph.ca.gov/certlic/drinkingwater/Documents/TMFplanningandreports/EmergencyResponsePlan_revised.doc

Ensure that the emergency response plan includes:

a. A list of all disasters and emergencies that is likely to occur in the water system's service area. Include earthquakes, fires, and disinfection failure at minimum as well as flooding, water outages, water contamination, power outages, and other potential local emergencies.

b. The names and contact information of water system personnel including the decision makers. Identify responsibilities, and provide a clear chain of command.

c. An inventory of system resources used for normal operations and available for emergencies including maps and schematic diagrams, lists of emergency equipment and suppliers, emergency contract agreements, and emergency water interconnections or sources.

d. A communication network that describes a designated location for an emergency operations center, emergency contact information for equipment suppliers, emergency phone and radio communication capabilities, coordination procedures

with governmental agencies for health and safety protection, technical and financial assistance, and public notification procedures.

e. Emergency procedures to quickly assess damage to water system facilities, including logistics for emergency source activation and repairs, procedures for monitoring progress of repairs and restoration, and procedures for documenting damage and repairs.

f. A description of the steps that will be taken to resume normal operations and to submit reports to appropriate agencies.

11. Policies

[Funding Projects, New Systems, and Changes of Ownership- ***Necessary***]

Water systems need to have written policies that describe procedures to be followed for given circumstances. While written policies can describe a broad spectrum of topics, at a minimum an adopted policy manual should include prescribed procedures for:

a. Nonpayment of water charges
b. Unauthorized use of water
c. Hours worked and overtime
d. Complaint responses
e. Contract operators, if applicable
f. Governing board activities such as regulatory responsibilities, expenditure allowances, meeting notifications, resolution adoptions, and other issues as applicable
g. Documentation of water systems maintenance, repairs, new construction.

12. Budget Projection / Capital Improvement Plan

[Funding Projects, New Systems, and Changes of Ownership - ***Mandatory***]

Develop a 5-year budget projection that lists all of the expenses and revenues of the water system. The total expenses include the operations and maintenance (O&M) expenses of the system such as salaries, power, chemicals, monitoring, and other costs. Expenses also include the administrative expenses such as insurance and debt service as well as funded reserve accounts. These reserve accounts are the capital improvement plan (CIP), operations and maintenance reserve, contingency reserve, and other reserve accounts needed to manage the system. Revenues are all of the sources of funds the system receives including income from billing, assessments, hookup charges, reserve fund withdrawals, grants and loans, and other income.

Use the sample 5-year budget projection/CIP template, or an equivalent alternative, that is located on the CDPH website at

http://www.cdph.ca.gov/certlic/drinkingwater/Documents/TMFplanningandreports/swsbudgetcalculator-CIPandMinRateGen.xls . This file consists of guidelines for completing this spreadsheet on the first Excel tab, the 5-year budget projection on the second tab, and the CIP on the third tab.

To develop a CIP using the above template: on the CIP tab, list all of the water system components. Use the Typical Equipment Life Expectancy list at http://www.cdph.ca.gov/certlic/drinkingwater/Pages/TMF.aspx to view sample average life expectancies of the system components that can be used on the CIP template. This life expectancy chart lists only recommendations. If available, use figures appropriate for your location. The average annual cost to replace all system components as they age is linked to the tab for the 5-year budget projection so that the costs to replace the system components will be funded in the budget projection.

Note: On the 5-year budget projection/CIP template that the areas shaded in lighter yellow on both tabs concern the costs projected for new CDPH funded projects. New project operations and maintenance costs must be listed since they will not be included in the new funding. Also, a percentage of the CIP cost for the new project may be included in the debt service for a new CDPH loan.

If the water system expenses and revenues are included in the overall budget for a facility such as a mobile home park or a school, separate the water system expenses from the total facility budget. Estimate if exact figures are not available. For example, if the facility receives one overall power bill, estimate perhaps 10% of the overall bill for the water system. As actual figures become available, readjust the budget.

13. Budget Control

[Funding Projects - ***Necessary***; New Systems and Changes of Ownership -***Mandatory***]

A financial policy that includes, but is not limited to:

a. Budget control procedures in which one person records a transaction and a manager review and approves it. Describe budget controls for:
   1) Cash receipts and disbursements
   2) Bank accounts
   3) Payroll

b. Financial reports prepared for review at board meetings such as:
   1) Customer Receivables Report
   2) Check Register Review
   3) Bank Reconciliation Report
   4) Budget Comparison Report
   5) Quarterly Comparative Balance Sheet
   6) Tax Returns

c. Criteria and withdrawal guidelines for the maintenance of reserve accounts including:
   1) CIP Reserve
   2) Operations and Maintenance Reserve
   3) Contingency or Emergency Reserve
   4) Other Reserves

d. Reporting procedures to appropriate levels of authority to ensure that there is no commingling of revenue sources.

e. Periodic reviews of the budget status by a Certified Public Accountant or appropriately qualified financial officer of the water system to ensure continuing financial viability. Three years of the most current audited financial reports must be submitted for all CDPH funding projects.

Acronyms

ARRA	American Recovery and Reinvestment Act
ASDWA	Association of State Drinking Water Administrators
AWWA	American Water Works Association
CCR	California Code of Regulations
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CHSC	California Health and Safety Code
CIP	Capital Improvement Plan
CRWA	California Rural Water Association
CWS	Community Water System
EPA	Environmental Protection Agency
LPA	Local Primacy Agency
NEPA	National Environmental Protection Act
NTNCWS	Nontransient Noncommunity Water System
RCAC	Rural Community Assistance Corporation
SDWA	Safe Drinking Water Act
SRF	State Revolving Fund
SWAP	Source Water Assessment and Protection Program
SWRCB	State Water Resources Control Board
TMF	Technical, Managerial, and Financial Capacity
TNCWS	Transient Noncommunity Water System
WWS	Water Works Standards