

June 30, 2004

**REPORT TO THE GOVERNOR ON THE
EFFECTIVENESS OF THE CAPACITY DEVELOPMENT STRATEGIC
PLAN TO IMPROVE PUBLIC WATER SYSTEMS IN THE STATE OF HAWAII**

This report to the Governor is required by the capacity development provisions in the national Safe Drinking Water Act (SDWA), which mandates a report to the Governor every three years. This report addresses the efficacy of the strategy and the progress made towards improving the technical, managerial and financial (TMF) capacity of public water systems in the State. The first capacity development report to the Governor was provided on July 31, 2001.

History of the Capacity Development Program

The Safe Drinking Water Branch (SDWB) in the Department of Health(DOH), Environmental Management Division, has primacy responsibility to implement the national SDWA requirements in Hawaii. The capacity development requirements in the SDWA introduced the following new terms into the drinking water regulations:

Capacity means the overall capability of a water system to consistently produce and deliver water meeting all national and state primary drinking water regulations in effect or likely to be in effect when new or modified operations begin. Capacity includes the technical, managerial and financial capacities of the water system to plan for, achieve, and maintain compliance with applicable national and state primary drinking water regulations

Technical capacity refers to the physical infrastructure of the water system, including but not limited to the adequacy of the water source(s), treatment, storage, and distribution systems, and the ability of the water system personnel to adequately operate and maintain the system and to otherwise implement technical knowledge.

Managerial capacity refers to the ability of the water system to manage itself, including clear ownership , organization, communications, and accountability; adequate management, staffing, policies, training and information management; and effective relationships with customers, and regulatory agencies.

Financial capacity refers to the financial resources of the water system, including an adequate budget, adequate fiscal controls and credit worthiness.

The capacity development provisions in the SDWA require States to: (1) implement regulations that new water systems starting operations after October 1, 2000, must demonstrate adequate technical, managerial and financial (TMF) capacity, and (2) create and implement a strategic plan to improve the TMF capacity of existing public

water systems.

The TMF capacity attributes for Hawaii were developed with a stakeholder group which included the American Water works Association, Maui Land and Pineapple Company, West Hawaii Water Company, Hawaii Association of Realtors, Rural Community Assistance Corporation, Campbell Estates, and American Savings Bank. Comments from County and privately owned public water systems and the public were also solicited. The TMF capacity attributes are codified in the Hawaii Administrative Rules, Title 11, Chapter 20, Rules Relating to Potable Water Systems.

1. REGULATION FOR NEW WATER SYSTEMS TO DEMONSTRATE TMF CAPACITY

The DOH revised the Hawaii Administrative Rules, Title 11, Chapter 20, Rules Relating to Potable Water Systems, to require new water systems to demonstrate adequate TMF capacity before authorization for a new water system to begin operation is granted.

- a. Prior to starting work on the new water system's infrastructure (excluding wells), the new water system must: (1) first obtain a satisfactory review by the DOH that the proposed raw water source can approved as a new drinking water source, (2) obtain DOH approval for the construction plans for the new water system, and (3) demonstrate that selected pre-construction TMF capacity attributes are adequate.
- b. After the new water system's infrastructure is completed and prior to obtaining DOH authorization to begin operation of the new water system, the system must first: (1) obtain DOH approval of the raw water source for potable water use, (2) provide a licensed professional engineer's certification that the water system has been constructed in accordance with the approved plans and specifications, and (3) demonstrate that the remaining TMF capacity attributes in the Hawaii Administrative Rules, Title 11, Chapter 20 are met.

EFFICACY OF THE NEW REGULATIONS.

Before the new TMF capacity regulations were enacted, developers wanting to subdivide their properties in areas where the County water systems or other privately owned public water systems did not provide services were able to create their own water system and turn over the water system to the subdivision's community association. In some cases, the community association managers did not understand the national and state drinking water regulations and were not prepared to technically or financially manage a public water system. As an example, a golf course subdivision had the golf pro assigned as the part-time manager responsible for the operation of the water system.

Using the TMF capacity regulations, the DOH is requiring developers who install a new water system to provide water for a subdivision, to demonstrate adequate TMF capacity. Rather than training a staff (manager and operators) to operate the new water system, the DOH is approving an alternative for the developer to incorporate into the covenants for the new subdivision, a requirement that the community association will: (1) contract a private water system operations company to manage and operate (includes providing certified operators) the new water system, and (2) if needed, to contract with a private financial management company to bill customers, collect the money owed, pay the water system's bills, and provide the financial records for the water system.

On Maui, the Department of Water Supply has a moratorium on approving additional water service connections in certain districts (e.g., Upcountry Maui) because the County water system is unable to provide the additional water to service new customers. Several new small subdivision water systems were approved in Upcountry Maui where the community associations contracted a private water system operator to provide the technical and managerial support to operate the water system and contracted also, a private financial management company to provide the needed financial services support. These new small water systems have TMF capacity as mandated by the national SDWA regulations.

In Kona, a development company created their own public water system and formed a utility company to operate the new public water system. The company contracted a private water system operations company to manage and operate the new water system and will financially manage the water system itself.

The State TMF capacity regulations satisfactorily meet the national SDWA requirements and allow responsible development to continue.

2. STATE STRATEGIC PLAN TO IMPROVE THE CAPACITY OF EXISTING WATER SYSTEMS

The national SDWA require States to develop a strategic plan to identify and prioritize those water systems most in need of assistance and to provide assistance to improve the TMF capacity of existing public water systems. The SDWA however, does not provide States with the authority to mandate facility upgrades or operational improvements in existing public water systems. Water system managers have the option of not participating in actions or programs to improve the TMF capacity of their water systems when there are no compliance issues with meeting the national SDWA requirements.

The State's initial strategic capacity improvement plan incorporated the following provisions:

- a. Identification of the five public water systems that are most in need of improvement in the State. The SDWB personnel identified the five water systems most in need of improvement in the State as:

Kauai - Gay & Robinson
Oahu - Dillingham Ranch (was Mokuleia Land Company)
Maui - Hana Water Company
Molokai - Kualapuu
Hawaii - Hawaiian Shores

- b. Provide assistance to improve the TMF capacity of the five water systems identified as most in need of improvement. The assistance to identify TMF capacity shortcomings and actions to improve capacity were provided through a contract paid by the State Revolving Fund (SRF) set-aside grant from the Environmental Protection Agency (EPA). The contract was for two years and is now complete.

The assistance provided identified the TMF capacity weaknesses in each water system and offered hands-on assistance to managers to improve their water system's performance. Except for Hawaiian Shores, the improvements realized by the assistance contract were disappointing because the water system managers did not take full advantage of the assistance provided by the contractor. In some cases, water system management canceled appointments or did not return telephone calls. The prevailing attitude seemed to be, the system is not broken (no SDWA compliance issues), so why spend time and money on improving TMF capacity.

- c. Provide training to certify public water system treatment plant and distribution system operators. The national SDWA require States to certify the public water system operators. To obtain certification in Hawaii, the operators need to pass a written examination prepared and graded by the Association of Boards of Certification (ABC), an independent and nationally recognized organization used by most of the other states for the certification of operators.

The SDWB entered into a training contract to provide the needed operator training statewide at no cost to the operators. The training provided by the Rural Community Assistance Corporation enabled seventy five percent of the operators to pass the national certification examinations on the first try. The training contract was funded by the SRF set aside grant funds from the EPA. At present, there are 460 certified public water system operators statewide.

- d. Provide a three-year continuing education training program for water system operators to improve knowledge levels. The State regulations require operators to re-certify every two years by obtaining continuing education credits (CEU). The three-year training program was provided by the Rural Community Assistance Corporation through a contract paid for by SRF set-aside funds from the EPA. This training contract will expire on June 30, 2004.

The three-year training program provided operator training opportunities on all islands to meet the operator CEU needs.

The capacity improvement strategic plan was revised in January 2004 and again in April 2004 to include the following:

- a. A “circuit rider” program. This program requires a knowledgeable and experienced person to periodically visit all of the small public water systems in the State and provide hands-on technical, managerial and financial capacity assistance to the water system operators and manager. This program is used by several states on the mainland with good success in improving the ability of water system operators and manager and thereby improve the water system’s overall capacity. The circuit rider program will identify the technical, managerial and financial problems noted at the systems and provide training and hands-on assistance to resolve the problems. The circuit rider program will also implement a “hot line” call system (telephone or e-mail) to provide operators with an avenue to obtain help when needed. The circuit rider’s function is to train operators and not do the work for the operator.

The SDWB intends to enter into a five-year contract by the end of calendar year 2004 to implement this program. The SRF set aside EPA grant funds for small water systems will pay for the contract.

- b. Include TMF capacity assessments as part of the SDWB sanitary survey inspections of water systems in the State. The SDWB’s sanitary survey program periodically inspects all water systems in the State for contamination pathways into the drinking water. The capacity assessments will not be in-depth reviews, but are intended to provide periodic snapshots of TMF capacity in water systems statewide.
- c. Provide a long-term continuing education program for water system operators. The SDWB and the University of Hawaii’s Outreach College have agreed to enter into a contract for the University to develop and implement a continuing education training program for water system operators on all islands. The contract will be signed by October 2004. The EPA will provide the startup and implementation funds for this

contract. After the contract is over and the startup funds expended, the University will charge tuition to the operators to maintain the training program on a continuing basis.

EFFICACY OF THE STATE STRATEGIC PLAN

Capacity assistance

The strategic plan action item to provide assistance to five small water systems most in need of improvement was not very successful because (1) the water system's own funding for improvements were limited, (2) the water system operation is a part-time effort since the company earns its income by other means, and (3) some of the manager's attitudes were we're doing okay (no compliance orders against my water system) so there is no need to spend time and money for TMF capacity improvements.

Improving technical capacity is adequately addressed in the strategic plan. The area of managerial and financial capacity needs additional attention. To improve the small water system's performance in this area, the SDWB's contract for the circuit rider program requires the circuit rider to identify managerial and financial problems in the small water systems and provide the necessary training and hands-on assistance to resolve the managerial and financial capacity problems. The training and hands-on assistance will be provided at both the operator and manager levels in the water system.

The strategic plan efforts to improve the financial posture of small water systems are hampered by the following:

- a. Difficulty for small water systems to obtain a water rate increase. The Public Utilities Commission (PUC) procedures require public water systems to use a law firm to file for water rate increases. The small water systems have a very small customer base and the customers cannot afford to pay for rate increases which include recovering the cost of hiring a law firm. Consequently, the financial capacity for some small water systems regulated by the PUC remain unsatisfactory (operational costs exceed income generated).

The SDWB met with the PUC on two occasions but was unable to obtain a commitment to relax the need for small water systems to use a law firm to file for a rate increase.

- b. The State currently cannot provide low interest SRF loans to privately owned public water systems. The national SDWA includes a State Revolving Fund (SRF) program to assist public water systems by providing low interest loans to improve or upgrade the facilities. This program is administered by the DOH Environmental Management

Division's Safe Drinking Water and Wastewater Branches. The SRF program at present has the administrative procedures to provide loans to only County owned water systems and cannot provide loans to privately owned public water systems. .

The Wastewater Branch is working to provide the administrative procedures to provide SRF low interest loans to privately owned public water systems.

Operator training The operator training program has been highly successful and having the University of Hawaii's Outreach College provide the operator continuing education training on all islands on a long term basis will significantly benefit this program.