

**Connecticut's  
Annual Capacity Development Report  
for the period**

**July 1, 2002 – June 30, 2003**

**I) Implementation Activities**

The State of CT, Department of Public Health (DPH), conducted the following activities in accordance with Section 1420(C) of the Safe Drinking Water Act and Amendments during state fiscal year ending June 30, 2002:

**A. Methods or Criteria to Identify and Prioritize Public Water Systems (PWS) in need of Technical, Managerial and Financial (TMF) assistance. (Section 1420(C)(A))**

As stipulated in our original strategy, the DPH intends to prioritize systems for assistance using compliance data in the Safe Drinking Water Information System (SDWIS) State database and from results of sanitary surveys. The selection of public water systems (PWS) requiring additional assistance is primarily accomplished by 2 mechanisms. The first is the sanitary survey review and compliance, and the second is the level of enforcement activity as a result of maximum contaminant level (MCL) exceedance and/or a monitoring/reporting (M/R) violation. Proactive determinations of which systems require additional technical assistance is identified through the PWS's ability to respond to compliance requirements for prescribed regulation implementation.

The failure of an existing PWS to comply with either the Department of Public Utility Control (DPUC) or the DPH regulations could require joint hearings to determine the PWS's economic viability. If it is determined that the PWS is not viable, the DPUC, with DPH's consultation, may order the acquisition of the PWS by the most suitable entity. This is a two step process; the first step is a thorough evaluation of the PWS's ability to provide TMF capacity. The second is the determination of possible restructuring or acquisition by a more reliable and sound PWS.

The "take-over" process has typically resulted in more viable systems or the elimination of an existing PWS. Non-viable PWSs tend to chronically fail to achieve compliance in areas such as monitoring for contamination issues, difficulty meeting the more comprehensive treatment requirements, infrastructure deficiencies and financial constraints due to the smaller customer base. The process has proven to help prevent system failure, water service interruption, lack of monitoring and/or reporting, etc. elimination of non-viable systems has had positive impacts on application of resources, risk reduction and compliance success. Successful "take-overs" also results in a deterrent to other PWSs operating in inefficient or ineffective manners.

**B. Identification of Factors that Enhance or Impair Capacity (Section 1420(c)(C))**

Factors within this element have not changed from the original strategy, however, the activities of the Water Planning Council, consisting of a diverse group of industry, environmental and state/federal agencies, has assessed capacity development issues. The Water Planning Council was established to prepare a report, after evaluating 11 issues, one of which deals with TMC issues of PWSs. Although draft reports are being prepared, the process has spawned an excellent myriad of suggestions that may lead to the DWD's update or modification of some of its original Capacity Development Strategy.

Sanitary surveys, vigilant enforcement and "take-over" proceedings are tools to assist in either maintaining viable PWSs or initiatives that act as deterrents to non-viable PWSs.

**C. How States are Using the Authorities and Resources of the SDWA (Section 1420(c)(C))**

The non-community system staff of the DWD presented 4 statewide seminars to train local health authorities in various drinking water issues related to non-community and small community PWSs. The training was considered to be successful process.

The DWD's Outreach Program developed an informational brochure entitled "Introduction to the Water Business". The brochure is a proactive approach focusing on what it takes to become a PWS, an overview of financial, managerial and technical capacity, what it takes to manage revenue effectively, what are average monitoring costs, calculation of water rates, others costs and resources available to PWS owners and potential owners.

The DWD utilizes the full set-aside of 31% available from the Drinking Water State Revolving Fund (DWSRF) to fund various initiatives that would not have been otherwise funded by either state or federal funds. The summary of set-aside funds is as follows:

- 4% - Administration of the DWSRF
- 10% - Augmentation to the existing Public Water Supply Supervision Grant
- 2% - Small system technical assistance through outreach activities
- 15% - local assistance activities which include 5%-wellhead protection activities; and 10%-capacity development activities

The DWD intends to consolidate its Certified Operator Program within the Operator Certification Expense Reimbursement Grant. The DWD has had a long standing Operator Certification Program, the additional Federal funding will allow us to expand this program to NTNC systems. It has been long recognized that properly trained and certified water supply professionals reduce non-compliance and enforcement actions.

The DWD's ability to carry out on-going surveillance of water quality is improving by implementation of an upgraded SDWIS. Utilization of more efficient methods to accept and review water quality will lead to an enhanced mechanism of providing technical assistance.

The DWD has continued 3 contractors for three consecutive years. The contractors performed numerous outreach and/or technical assistance to PWSs. The contractors are as follows:

- CT Section of the American Water Works Association (CT-AWWA)
- CT Council of Small Towns (COST)
- Atlantic States Rural Water and Wastewater Association (ASRWVA)

Activities carried out by the contractors are as follows:

- The ASRWVA circuit rider contract proved to be challenging due to the number of required statewide small NTNC system visits. Time constraints of the owner with scheduling during daytime work hours was a common problem. Of the 240 NTNCs to be visited, 149 were completed to date.
- The COST contract was successful in initiating and coordinating 2 quarterly Small Town Public Water System Advisory Committee (STPWAC) meetings and 2 small town PWS conferences. These meetings were established to determine the baseline knowledge of CT's small town and local government officials regarding PWS issues; and to provide current and relevant information to these constituents. Focus of the meetings centered on issues of system capacity, technical assistance, consolidation/ take over proceedings, how to address both technical and management needs of small PWS owners/operators, and regulatory issues. The Drinking Water Advisory Committee (DWAC) was established to serve as a public advisory vehicle for DWD initiatives and is companion to the STDWAC. Issues discussed at the DWAC will be discussed at the STDWAC meetings to get regional perspectives and recommendations. The process resulted in a formal needs assessment report utilizing all information gathered from the meetings. The DWAC meetings were held on July

11, 2001 and October 31, 2001; regional meetings were held on August 15, 2001 and November 27, 2001.

- The CT-AWWA contract goal to provide training, education, and technical assistance information to all of CT's PWS owners and operators was very successful. Four issues of the Source to (Technical Assistance Program) TAP Newsletter (Spring 2001, Summer 2001, Fall 2001 and Winter 2001) were developed and mailed to each of CT's small PWSs. This quarterly newsletter reached over 3,600 small PWSs, each of CT's local directors of health, and DPH/DWD staff. The newsletter kept small PWSs informed about small system design, water treatment, distribution, finance, security, new technology regulatory changes, training, educational resources, and technical assistance organizations.
- The TAP free-technical workshops provided an important opportunity for small PWS operators to learn from group discussions, DPH attendees, and other workshop attendees. One hundred six individuals registered for the four training sessions that were offered.
- One hundred twenty-nine calls were received and responded to through the toll-free information line. This call volume exceeded the number of calls received the previous year. These services contributed significantly to the call volume that first year, but even with the reduction in service, the call volume increased. This suggests that interest in the TAP services and knowledge of the TAP increased during the year. The service referred callers to DWD 2% Technical Assistance contractors, government agencies, larger neighboring water systems, other water profession associations, water resources protection firms, testing laboratories and other appropriate sources of assistance.
- The Public Education Partnership campaign educated water utility customers and residents of CT about public drinking water related topics. The Partnership goal was to instill in customers a high level of confidence in their water utility, public drinking water supplies and state regulators. The campaign combined television with the power of the Internet. Through the Partnership, six high quality public water message television spots were produced and five were aired during WTNH Channel 8 prime-time TV programs. There were 500 spots available and used. Participating utilities with a website were listed on and linked with the homepage of WTNH Channel 8, including drinking water fact sheets and other related information. This enabled participating water utilities to meet state regulatory requirements for conservation and source protection education, conduct community outreach, link to schools in their respective service areas and build a unique public-private partnership model.

**D. Method of Establishing a Baseline and Means of Measuring Improvements (Section 1420(c)(D))**

The DWD's Performance Partnership Agreement (PPA) with the EPA, has in effect, established baseline activities. Data is compared and analyzed via yearly reporting of qualitative and quantitative indicators to EPA. Yearly analyses are used to determine necessary program modifications. The PPA Goals and Objectives listed below are from the PPA for FFYs 2001-2002. Goals, objectives and indicators are modified and updated as needed. The following activities are measured:

Goal One: Minimize Risk of Contamination of PW Sources and Systems Through Preventive and Protective Activities

Objective One: Reduce risk of contamination by improving elements of Cross Connection Control Program

- 1a.) # of cross connection reports required
- 1b.) # of cross connection reports submitted
- 2a.) # of cross connection reports reviewed
- 2b.) # of unsatisfactory cross connection reports submitted
- 3.) # of unsatisfactory cross connection reports addressed
- 4a.) # of reports with uncorrected cross connection violations addressed
- 4b.) # of reports with uncorrected cross connection violations

Goal Two: Maximize Compliance with Water Quality Standards

Objective One: To Increase CWS compliance with water quality monitoring, reporting, and water quality standards, and to decrease the number of systems on EPA's Target and Significant Non-Complier Lists

- 1.) # of CWSs monitored
- 2.) # of CWSs issued non-reporting violations
- 3a.) # of CWSs issued MCL violations
- 3b.) Population affected by MCL violations
- 4a.) # of CWSs on EPA's quarterly SNC list
- 4b.) # of CWSs on EPA's SNC list issued fea's
- 4c.) # of CWSs on EPA's SNC list returned to compliance
- 5a.) # of CWSs on EPA's annual Target list
- 5b.) # of CWSs on EPA's annual Target list returned to compliance

Objective Two: To Increase NTNC compliance with water quality monitoring, reporting, and water quality standards, and to decrease the number of systems on EPA's Target and Significant Non-Complier Lists

- 1.) # of NTNCs monitored
- 2.) # of NTNCs issued non-reporting violations
- 3.) # of NTNCs issued MCL violations
- 4a.) # of NTNCs on EPA's quarterly SNC list
- 4b.) # of NTNCs on EPA's SNC list issued fea's
- 4c.) # of NTNCs on EPA's SNC list returned to compliance
- 5a.) # of NTNCs on EPA's annual Target list
- 5b.) # of NTNCs on EPA's annual Target list returned to compliance

Objective Three: To Increase TNC compliance with water quality monitoring, reporting, and water quality standards, and to decrease the number of systems on EPA's Target and Significant Non-Complier Lists

- 1a.) # of TNCs monitored
- 1b.) # of TNCs submitting all required water quality reports
- 2.) # of TNCs issued non-reporting violations
- 3.) # of TNCs issued MCL violations
- 4a.) # of TNCs on EPA's quarterly SNC list
- 4b.) # of TNCs on EPA's SNC list issued fea's
- 4c.) # of TNCs on EPA's SNC list returned to compliance
- 5a.) # of TNCs on EPA's annual Target list
- 5b.) # of TNCs on EPA's annual Target list returned to compliance

Goal Three: Maximize the Number of PWSs Providing and Maintaining Adequate Infrastructure

Objective One: Maximize the number of CWSs with existing treatment systems providing a water quality that meets Public Health Code standards

- 1a.) # of CWSs without certified treatment operators (done)
- 1b.) # of CWSs required to have certified treatment operators (done)
- 1c.) # of CWSs returned to compliance (done)
- 2a.) # of CWSs not meeting treatment requirements
- 2b.) # of CWSs that need to meet treatment requirements
- 2c.) # of CWSs returned to compliance

Objective Two: Maximize the number of NTNC water systems with existing treatment systems providing a water quality that meets Public Health Code standards

- 1a.) # of NTNC water systems without certified treatment operators
- 1b.) # of NTNC water systems required to have certified treatment operators.
- 1c.) # of NTNC water systems returned to compliance
- 2a.) # of NTNC water systems not meeting treatment requirements
- 2b.) # of NTNC water systems that need to meet treatment requirements
- 2c.) # of NTNC water systems returned to compliance

Objective Three: Review all plans and specifications for NC water system infrastructure improvements in a consistent and timely manner

- 1.) Total number of plans and specifications for infrastructure improvements<sup>5</sup> submitted.
- 2.) Total number of plans and specifications reviewed
- 3.) Total number of plans and specifications for infrastructure approved

- 4.) Number of enforcement actions issued to non-community water systems installing or upgrading infrastructure without required Departmental approval

Objective Four: Maximize correction of Public Health Code violations of CWSs identified in sanitary surveys

- 1.) # of sanitary surveys conducted on CWSs in a 3 year cycle.
- 2a.) # of CWSs with PHC violations identified in sanitary surveys.
- 2b.) # of CWSs returned to compliance

Objective Five: Maximize correction of Public Health Code violations of NTNC systems identified in sanitary surveys

- 1.) # of sanitary surveys conducted on NTNC water systems in a 5 year cycle.
- 2a.) # of NTNC water systems with PHC violations identified in sanitary surveys.
- 2b.) # of NTNC water systems returned to compliance.

Goal Four: Maintain an effective public water supply supervision program that supports identified mission, goals and objectives

Objective One: Implement elements of the proposed organizational plan that maintains an effective Public Water Supply Supervision Program.

- 1.) Hire new staff and incorporate existing staff into the organizational structure of the DWD, consistent with the proposed organizational plan.

Objective Two: Implement the integrated information management system

- 1.) Re-evaluate the integrated information management system work plan and its priorities.
- 2.) Pursue Electronic Data Interchange and Imaging concept for Section utilization.
- 3.) Develop a DWD plan to accommodate data entry.

Objective Three: Increase the DWD's capacity and provide information and technical assistance to CT's drinking water constituencies.

- 1.) Develop a work plan consistent with the Capacity Development Strategy for the Outreach Program.
- 2.) Assess DWD participation at educational forums.
- 3.) Evaluate the Consumer Confidence Reports Program.

Goal Five: Development and Implementation of Short-Term Program Initiatives

Objective One: Develop and implement a SWAP consistent with SDWA requirements

- 1.) Create and fill three FTE positions. (done)
- 2.) Monitor the contract with USGS for Tool Box Study for delineation of bedrock wells.
- 3.) Implement the SWAP Work Plan.

Objective Two: Modify existing state regulations and develop new regulations necessary to maintain primacy and protect public health using the established regulatory review procedures

- 1.) Progress towards developing Operator Certification program due 2/5/01 (done).
- 2.) Progress towards developing Disinfection By-Products Regulation
- 3.) Progress towards developing Interim Enhanced Surface Water Treatment Rule
- 4.) Progress towards developing Administrative Penalties Regulation
- 5.) Progress towards revising Lead & Copper Regulation
- 6.) Progress towards developing Consumer Confidence Report regulation
- 7.) Progress towards revising Public Notification Regulation
- 8.) Monitor regulatory schedules and request necessary EPA extension agreements

Objective Three: Development of a Quality Assurance Project Plan in Cooperation with Region 1 States

- 1.) Develop and implement an ongoing quality system and document this quality system in a Quality Management Plan (QMP) in accordance with "EPA Requirements for Quality Management Plans" (QA/R-2,11/99) and submit it to EPA for approval. (revise)
- 2.) Within 30 days of the effective date of this assistance agreement, the DWD will submit a schedule for QMP; the date for the submittal of the QMP will be sent to the EPA Project Officer. (revise)
- 3.) The DWD will develop a Quality Assurance Project Plan [QAPP] to support all environmental and public health data operations in accordance with "EPA Requirements for Quality Assurance Project Plans" QA/R-5, 11/99 and/or the EPA NE Compendium Of Quality Assurance Project Plan Requirements and Guidance, 10/99. The term "environmental and public health data operations" refers to activities involving the collection, generation, compilation, analysis, evaluation and use of environmental and public health data. (done)
- 4.) Within 30 days of the effective date of this assistance agreement, the DWD will submit a schedule for the development of the QAPP. The DWD will submit schedule to the EPA Project Officer.

- 5.) Continue developing the Standard Operating Procedures Manual for the DWD.
- 6.) Identify elements of the Sampling Procedures Manual to include within the QAPP & SOP.

Objective Four: Develop & Implement a TNC Program Consistent with the SDWA Requirements Acceptable to EPA

- 1.) Establish a strategy to partner with local health departments and conduct forums (ongoing)
- 2.) Evaluate and create FTE positions as necessary to effectively administer the TNC Program (revise)
- 3.) Develop a TNC enforcement strategy consistent with the Capacity Development strategy (done)
- 4.) Develop a strategy to allow for data entry (ongoing)

Objective Five: Develop an Outreach Strategy to Assist Systems to Obtain and Maintain Capacity

- 1.) Monitor success of technical assistance contracts.
- 2.) Development of outreach materials (ongoing)
- 3.) Submit report to EPA on success of Capacity Development Program by 8/6/01 (revise)
- 4.) Revise existing enforcement strategy to be consistent with the Capacity Development strategy (ongoing)

## **II. Changes to Strategy**

The Federally approved Capacity Development Strategy for Connecticut, has served to consolidate all programmatic activities within the DWD into a more cohesive, consistent effort. In establishing a directive to support viable systems and eliminate those systems unable to sustain acceptable levels of capacity, the Capacity Development Strategy has defined the direction toward which the Division's resources can be applied effectively. It has also identified an intricate weave of program activities critical to its implementation.

As such, the Strategy has been determined to be positive and, it is recommended that it be maintained as approved. Modifications to the Strategy, as indicated in this report, are for the most part, changes in emphasis, or prioritization of certain components; not redirections or elimination of elements. Significant from this review is the necessity that certain program areas will need emphasis as the DWD moves forward. These areas include:

- ❖ Emphasis on outreach activities due to its demonstrated, positive contribution with local health departments, municipal officials and the general public.
- ❖ Emphasis on operator certification activities as supportive of professionalizing operators capable of addressing our new national infrastructure security concerns.
- ❖ Emphasis on data management/data entry procedures and processes as critical to efficiently processing compliance determinations and supporting enforcement efforts.
- ❖ Emphasis on staff and local health director training to support NC system program activities.
- ❖ Emphasis on providing technical assistance to the Water Planning Council's technical review in the areas of the WUCC, the Certificate of Public Convenience and Necessity process and Water Supply Planning.
- ❖ Consideration of new mechanisms that will allow small PWSs easy access to DWSRF low interest loans.

Effective, continued implementation of the Capacity Development Strategy is dependent upon the continuation of the current Federal directive to develop system capacities, and upon EPA's ability to maintain adequate Federal funding support for the states. The Drinking Water Division of the Department of Public Health will continue to partner with Region 1 EPA, and participate through its affiliation with the Association of State Drinking Water Administrators, to support continuation of critical Capacity Development Strategy initiatives.