

State of Connecticut
Department of Public Health
Drinking Water Section

Governor's Capacity Development Strategy Report
for the period
July 1, 2002 – June 30, 2005



Keeping Connecticut Healthy
www.dph.state.ct.us

Governor M. Jodi Rell
Commissioner J. Robert Galvin, M.D., M.P.H.

September 2005

Executive Summary

The Connecticut Department of Public Health (DPH) is the primacy agency for implementing and enforcing the Federal Safe Drinking Water Act (SDWA). The 1996 SDWA Amendments require primacy states to develop a Capacity Development Strategy that addresses the technical, managerial and financial (TMF) needs of public water systems (PWS). The Capacity Development provisions provide a framework for the State of Connecticut and the PWSs to work together to ensure that adequate capacity to comply with drinking water regulatory requirements is acquired and maintained. Capacity Development is an important component of Connecticut's focus on prevention and early detection of problems.

Connecticut has, for many years, recognized that certain various program components were necessary for a strong Capacity Development Strategy. Connecticut had already established into law the core of its Capacity Development Strategy well before the SDWA Amendments of 1996. Connecticut has a large number of PWSs: 601 community water systems (CWS) which serve a residential population; 639 non-transient non-community systems (NTNC), and 1,675 transient non-community systems (TNC), which serve non-residential populations. Since Connecticut is a relatively small State, it is obvious a strong Capacity Development Strategy is critical to address this disproportionate number of PWSs.

The first step in Connecticut's approach to capacity development is prioritizing systems. Systems are categorized by type, i.e., CWSs and non-community (NC) systems. Not all CWSs require assistance from the State in developing TMF capacity. The systems that lack capacity in one or more of the TMF areas are identified through a prioritization process using "triggers" that are recognized as indicators of concern. Some of these indicators are: systems listed on the annual non-compliance list, systems with monitoring and/or reporting violations, systems lacking certified operators, and systems with water quality violations. Historically, smaller systems are more apt to be "non-viable" since they lack the capital of larger systems, may lack technical, financial, and/or managerial expertise, and are often isolated and unable to physically interconnect or be consolidated.

This process serves to retain existing viable systems that operate in sound, technical, managerial and financial manners, eliminate non-viable systems and prevent the creation of non-viable new PWSs. Restructuring of existing, non-viable systems can occur by direct acquisition or by contracting out services to such systems under receivership, or by some other alternative acceptable to the Connecticut DPH, and the Connecticut Department of Public Utility Control (DPUC). The Certificate of Public Convenience and Necessity (CPCN), also administered jointly, restricts the creation of new small systems by encouraging feasible interconnections with existing utilities and by regulating new system design and management. This is assisted by the Water Utility Coordinating Committee (WUCC) process that identifies water supply service area plans. Current outreach activities are essential parts of our Strategy and include educating municipalities and local health officials on drinking water elements, as well as the water systems themselves. The Drinking Water Advisory Committee, created to provide outreach and technical assistance, is charged with promoting the Capacity Development Strategy.

The Capacity Development Strategy has been positive. It is our intent, based on an analysis of the Capacity Development Strategy components, to continue with the basic direction and make modifications that are indicated in this report. The three State agency Commissioners that have authority over water resources were legislated in 2001 to form a Water Planning Council (WPC) that is charged with review of a number of our capacity elements for improvements. This will lead to future modifications. Significant achievements have been made through capacity development in meeting our mission of protecting the health of the citizens of the State of Connecticut. These include: educating local municipal and public health officials, conducting joint "take over" (Connecticut General Statutes 16-262) forums, more aggressive enforcement, expansion of the NC resources, increasing technical assistance and successful implementation of the Drinking Water State Revolving Loan Fund (DWSRF). Staff from the Drinking Water Section received the Connecticut's Governor's Service Award and the U.S. EPA Region I, Environmental Merit Award in 2002 for successful implementation of Capacity Development Strategy elements.

TABLE OF CONTENTS

	Page #
Introduction	4
Planning Program	5
Sanitary Surveys	5
Operator Certification	6
Cross Connection Control	7
Watershed Protection	8
Water Company Owned Land	8
SDWA Water Quality Regulations – Compliance	9
Drinking Water State Revolving Fund	9
Non-Community Program	10
Certificate of Public Convenience and Necessity and “Take-Overs”	11
Enforcement	12
Public Outreach	13
Information Management/Information Technology	13
New System Report 2002-2005	14
Capacity Development Strategy –2003 Evaluation	16

INTRODUCTION

The Connecticut Department of Public Health (DPH), as the primacy agency for implementing and enforcing the Federal SDWA, and the 1996 SDWA Amendments, is required to develop a Capacity Development Strategy that addresses the technical, managerial and financial (TMF) needs of public water systems (PWS). Technical capacity aspects of maintaining a PWS include source water adequacy, infrastructure adequacy and technical knowledge. Financial aspects include sufficient revenues, financial ability to maintain/operate systems, credit worthiness and satisfactory fiscal management and control. Managerial aspects include ownership accountability, adequate staff/organization, adequate planning and understanding of regulatory responsibilities.

Connecticut submitted its Strategy to the US Environmental Protection Agency (EPA) on August 4, 2000, and it was accepted on December 1, 2000. Connecticut was the first State in US EPA Region 1 to have its Strategy accepted. The SDWA further required Connecticut to adopt and implement its approved Capacity Development Strategy and, every 3 years, submit a report to the Governor on the efficacy of the Strategy and progress made since August 2000, toward improving the TMF capacity of its PWSs. The Federally approved Capacity Development Strategy for Connecticut has served to consolidate all programmatic activities within the Drinking Water Section (DWS) 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 DWS's resources can be applied effectively. It has also identified an intricate weave of program activities critical to its implementation.

- ❖ Emphasis on outreach activities due to its demonstrated, positive contribution to local health departments, municipal officials and the general public.
- ❖ Emphasis on outreach, compliance and technical assistance to all regulated Public Water Systems (PWS).
- ❖ 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 critical to efficiently processing compliance determinations and supporting enforcement efforts.
- ❖ Emphasis on staff and local health director training to support Non-Community system program activities.
- ❖ Emphasis on providing technical assistance to the Water Planning Council's technical review in the areas of the Water Utility Coordinating Committee (WUCC), the Certificate of Public Convenience and Necessity (CPCN) process and Water Supply Planning.
- ❖ Consideration of new mechanisms that will allow small PWSs easy access to Drinking Water State Revolving Fund (DWSRF) low interest loans.

Connecticut's strategic approach to drinking water regulation has always been unique and progressive. The Capacity Development elements presented in this report are the tools used by the Drinking Water Section that together form the strategy which is the basis of our program to maintain the viability of Connecticut's PWSs.

This second report to the Governor (2005) discusses each program initiative, presents its accomplishments and analyzes the successes. Necessary modifications to the Strategy are indicated after each analysis. The DWS conducted the following activities in accordance with Section 1420(C) of the Safe Drinking Water Act and Amendments during the period July 1, 2002 – June 30, 2005.

CAPACITY DEVELOPMENT PROGRAM INITIATIVES

Planning Unit

The planning process, which includes the WUCC, is designed to provide a forum that brings together water utility representatives, local officials, and other parties to discuss long-range water supply planning issues, establish exclusive service areas (ESA), and produce a coordinated water supply plan in each of 7 management areas statewide. Through this process, PWSs are encouraged to develop the capacity to provide appropriate regional drinking water service and thereby executing their responsibilities.

The “Connecticut Plan”, is the water supply planning process that was promulgated by the legislature in 1986, and currently administered by the Planning Unit of the Drinking Water Section. The Connecticut Plan addresses regional water supply needs under the individual water supply plan and regional long-term planning processes. DPH approval of each individual water supply plan and completion of each WUCC tries to ensure that issues surrounding quality and quantity of drinking water will be addressed at the local level.

Planning Unit- Accomplishments: WUCCs have been established in four of the seven regional management areas to date: the Housatonic (convened June 11, 1986), Upper Connecticut River (convened March 24, 1987), South Central (convened November 4, 1987), and the Southeast (convened August 5, 1998). The Housatonic, Upper Connecticut River, South Central, and the Southeast completed their plans in September 1988, March 1989, April 1990, and March 2001 respectively. The Southeast WUCC Plan was approved on February 19, 2002. The remaining WUCCs to be convened are (in priority order) Northeast, Southwest, and the Northwest areas. Each WUCC is comprised of representatives from PWSs and regional planning agencies within the area. Significant to the Southeast WUCC was the contribution by the regional municipalities in the planning process. Also, because of its significance, the planning process was one of 11 areas of concern recognized by legislation in 2000 that established the Water Planning Council. The WPC’s purpose is to address issues pertaining to Connecticut’s water resources and investigate issues, such as the WUCC, that are relevant to PWSs capacities. The WPC submitted its annual report to the legislature in January 2003, 2004, and 2005. The annual reports included findings and implementation strategies. In their recommendations, the WPC included the need to develop a reasonable timeline for completion of the three remaining management areas where WUCCs have not been convened and to continue the planning process in all management areas at least every ten years. In order to accomplish this recommendation, the WPC has recognized the need to review relevant existing legislation and regulations for the purpose of proposing constructive changes in legislation.

Planning Unit- Analysis: This program has served as a good tool, formalizing current and future regional water supply activities of the major PWSs within the State. The provision of adequate, safe water resources for growth and economic development has been highlighted by the recent WUCC activities in the Southeast, where issues concerning future development and water system expansions have been a source of local debate. Concerns raised by the Southeast and Housatonic WUCCs in particular, were instrumental in calling for a review and possible modification to the WUCC process in 2000. Local municipal rights and the quality of service provided by PWSs in the regional WUCCs, as well as the process itself, have been cited by critics as requiring a need for review and legislative attention.

Modifications to Strategy: The DPH believes that municipalities’ participation in the WUCC can foster a critical link to municipal land use planning. The Drinking Water Section will investigate this feasibility. The DPH is an active participant in the WPC process. Results of the WPC process will be reported to the legislature annually, with the next report due January 2006.

Sanitary Surveys

Sanitary Surveys provide for the physical on-site presence of regulatory staff at PWSs. Surveys also provide a positive mechanism for evaluating PWSs, since the physical condition of a PWS often reflects its TMF capacities. Sanitary surveys provide the following specific benefits:

- Continuation of operator education
- Documentation of infrastructure condition
- Source protection evaluation
- Technical assistance and training opportunity provision
- Risk evaluation (prioritization)
- Maintaining vital communications
- Sampling plan evaluations
- Identification of impediments to providing adequate safe drinking water
- State/Federal regulation compliance verification
- Records inspection
- Detection of data falsification
- Provision of operational advice
- Evaluation of system capacity for technical assistance purposes
- Security Vulnerability Assessments

Field engineers in the DWS conduct a review of the technical, managerial and financial capacity elements for existing CWS and NTNC water systems as part of the sanitary survey process. A review of each system's water quality results, compliance history, system size, and historical technical infrastructure deficiencies is reviewed prior to the site visit. Triggers of capacity weaknesses or failures include:

- MCL violations
- Monitoring and Reporting Violations
- Water outages
- Consumer Complaints
- Unaddressed infrastructure deficiencies identified in previous sanitary surveys
- Lack of a certified operator

Any identified triggers are discussed with the water system during the sanitary survey to identify the cause of the capacity weakness or failure. Technical assistance is provided, along with additional capacity assistance resources, to systems during the sanitary survey and with the sanitary survey report. Systems are typically given 30 days to send a formal response to DWS addressing their violations and other capacity deficiencies. Compliance meetings are scheduled with systems that fail to respond or fail to provide a sufficient response to their sanitary survey report. Compliance meetings are typically used to determine agreeable compliance dates between DWS and the water system for the preparation of a formal consent agreement. If a consent agreement cannot be achieved or the water system does not wish to participate in a compliance meeting, the DWS refers the matter to the DWS Monitoring Reporting and Enforcement unit to initiate formal enforcement actions.

Sanitary Surveys- Accomplishments: Presently CWSs are surveyed every 3 years and NC PWSs every 5 years. Of the 601 CWSs in Connecticut, 317 sanitary surveys were conducted during the period of July 1, 2002 – June 30, 2005. Of the 639 NTNCs, 321 sanitary surveys were conducted during that same period. A refocusing of resources to the NC Program to address the large number of NC systems in the State was conveyed in the 2002 Governor's report. This was accomplished with the support and concurrence of Region I EPA.

Modifications to Strategy: No modification to the current strategy is necessary. However, a refocusing of resources has occurred once more to ensure an ample number of sanitary surveys are being conducted on all public water systems, especially CWS and NTNC's.

Operator Certification

Connecticut recognizes the need to ensure proper operation of water facilities through properly trained and educated water systems operators. Approval authority for operator qualifications has been in statutes since 1937. Regulations for requiring certification were established in 1965 and in 1974 Connecticut Statutes were revised to require the classification of plants and certification of operators. Specific regulations were promulgated in 1982 and the first formalized examinations were offered in 1983. New, more comprehensive

regulations were passed in 2001 to comply with the SDWA Amendments of 1996 requiring states to establish operator certification programs for both community and NC systems. Significant in those requirements is for NTNC systems to now have certified treatment operators. Connecticut's Operator Certification Program (OCP) was approved by the U.S. EPA in November, 2001.

Operator certification problems can be a trigger for the need for capacity development assistance. There can be numerous problems with the certification of public water system operators. Some water systems are without operators. Presently, 584 of the 639 NTNC systems have a certified operator. Some common causes include failure of operators to renew their certification, Conditional (grand fathered) Operators that leave a system, change of system ownership, and termination of contracts with operators. This problem is addressed through technical assistance, followed by progressive enforcement (violation letter, order, civil penalty). Regulations are being proposed to improve notification of operator changes.

Operator Certification- Accomplishments: The passage of the operator certification regulations in 2001 was critical to implementing a program of professionalism for water system operators. Currently there are 1144 certified treatment operators in the State of Connecticut, ensuring proper operation of water facilities. The OCP now has five full time staff persons. As of June 30, 2005, there were 1246 systems required to have certified operators and 24 systems without certified operators. The OCP issued 60 notifications to systems informing them of the requirement to have certified operators and issued 53 violation letters for failure to have certified operators.

Operator Certification- Analysis: The Operator Certification program will be taking on a higher emphasis with newly available ERG funds, and incorporation of new program elements and resources. This includes additional staff and a focus on a higher level of professionalism and security training. Educational assistance to potential certified operators has been beneficial in improving the knowledge and skills in the drinking water industry and will be continued. It has become evident that properly trained and certified water supply professionals reduce noncompliance and enforcement actions.

Modifications to Strategy: The current directive of emphasizing the importance of operator certification is being maintained. The DPH intends to follow the operator certification strategy per EPA's approved program.

Cross Connection Control

A cross connection is defined as any connection, actual or potential, between a potable (drinking) water source and a non-potable water source, which could cause contamination of the public water supply, by backflow on back-siphonage. The DPH, since 1976, has had an active cross connection program that has primarily required larger (greater than 1,000 consumers) PWSs to conduct cross connection inspections. The premise of a Cross Connection Program is to prevent contamination of drinking water through a cross connection within the distribution system. A PWS that is unable to affect such a program demonstrates a lack of capacity to ensure safe drinking water.

Cross Connection Control- Accomplishments: The operator certification regulations package passed in 2001 also contained regulations governing backflow personnel. The OCP approves and participates in training for Backflow Prevention Device Testers and Cross Connection Survey Inspectors. The program administers the issuance and renewal of certificates for backflow personnel. Drinking Water Section activities regarding cross connection control since 2002 has included: outreach via mailings, newsletter articles, participation at seminars, operator training, and response to phone calls to make systems aware of the new cross connection control requirements.

Cross Connection Control- Analysis: The cross connection control program has been successful in educating PWSs of the importance of vigilance over water distribution systems in preventing contamination of drinking water. This program takes on more emphasis with the additional, elevated need since 9/11/01 to ensure security and safety of public drinking water systems from intentional threats. Currently there are 602 backflow device testers and backflow inspectors certified by the DPH. Given current security concerns and the nature of

contaminations, increasing the number and educational level of professionals involved in cross connection activities is now the program's goal.

Modifications to Strategy: Future initiatives include revisions and implementation to certify backflow personnel, a streamline review process for cross connection control survey reports, and on-site reviews of cross connection control programs.

Watershed Protection

A public water system using surface water as an active source of supply must make a sanitary survey of the watershed to the intake at least annually. Surface water supplies are obligated to maintain an active watershed inspection program as part of the multi-barrier approach to ensuring safe drinking water. Satisfactory maintenance of a watershed program is also an indicator of the PWS capacity to conduct source protection programs that effectively reduce the potential of contamination to surface water supplies. A system's ability to maintain such a program helps measure satisfactory TMF capacity.

Watershed Protection- Accomplishments: DPH staff reviewed fifty-one watershed inspection reports in the year 2004, covering approximately 166 individual reservoirs. Reviews ensure that PWSs focus on resolving water quality issues on their watersheds, thereby providing a multi-barrier form of drinking water protection. The required SWAP assessments were successfully completed by the EPA deadline of April 29, 2003, and posted on the DPH website. From May 1, 2003 to June 30, 2003 the wellhead protection set-aside was utilized to fund drinking water division source water protection staff working on moving from assessment to implementation of protection. Specific activities in this timeframe included initial discussions concerning development of a work plan and action items for the implementation of drinking water source protection. A strategic plan for the movement from assessment to protection was developed and finalized in November 2003. The Drinking Water Geographical Information System (DWGIS) was developed by the SWP Unit working with ERSI, Inc. This project started in February 2003 and was complete and available to all DWS staff on May 1, 2003. This new GIS based system links SDWIS, the SWAP assessments reports and GIS information into one intranet application available to the entire staff of DWS.

Watershed Protection- Analysis: An enhanced level of communication has been achieved over the past 7 years between the Department's Drinking Water Section, local health departments and PWSs enabling the watershed issues to be addressed more quickly and efficiently. The Watershed Protection activity continues to be an integral process for maintaining a protective barrier for sources of drinking water and is linked logically to current SWAP grant activities. Local health departments have been instrumental in addressing local compliance issues. Continuation of this activity is also heightened by security concerns. The advent of the Source Water Assessment Program, required by the 1996 Amendments to the SDWA adds a new dimension to the importance of watershed inspections.

Modifications to Strategy: No modification to the strategy is currently necessary. The 5-year strategic plan for Source Water Protection and the DWGIS system will be continuously updated and enhanced

Water Company-Owned Land

These regulations are unique to Connecticut and are not federally prescribed. In the late 1970's, shortly after the implementation of the SDWA, Connecticut's many large public water supplies were contemplating large land sales to raise capital for making improvements necessary to meet the water quality requirements of the SDWA. This control, although primarily applied to watersheds for reservoirs, is also utilized for water systems having identified ground water recharge areas. Oversight of water company owned land is also provided to DPH in legislative authority to permit "changes of use" on water company owned lands. The DPH also has authority to permit or deny recreational activities on such lands. Maintaining an orderly oversight of water company land sales, changes in use and permitted activities is, in effect, a control in maintaining capacity to protect sensitive land areas.

Water Company Owned Land- Accomplishments: Initiated redevelopment of standard operating procedures for both water company land reviews and recreational land use permitting. Began a process of reviewing the requirements under existing state statutes and regulations concerning change of use of water company land and recreational use permitting in order to institute a structured and simplified approach. Initiated discussions to link the water company lands laws to public water supply land use management plans. During 2004 and 2005, met with large public water systems to discuss streamlining the permitting processes. During the period of July 1, 2004 through June 30, 2005, fourteen (14) water company lands permit applications, ten (10) recreation permits, ten (10) annual reports for recreational activities, three (3) class III land determinations and one (1) Class I determination were reviewed. A significant statute modification was accomplished to the source water abandonment laws 25-33k,l, m, preserving and protecting large surface water supplies from sale, which also preserves the water company land.

Water Company Owned Land- Analysis: This program continues to be valuable in assuring that protective measures are being maintained in matters relating to changes in use as well as sale, or recreational use activities on water company owned lands.

Modifications to Strategy: Additional resources, through the SWAP set-aside provision of the DWSRF will be directed to watershed protection and water company owned lands provisions. Activities will be modified relative to continuation of federal funding.

SDWA – Water Quality Regulations – Compliance

On-going surveillance of water quality data provides an important tool that is used to indicate capacity. PWSs are required to submit water quality data on a regular basis. Failure to properly monitor and/or report water quality data can lead to violations that may trigger enforcement actions. The severity and the frequency of violations often identify critical capacity deficiencies within PWSs. PWSs that chronically fail to achieve compliance in this area may become targets for “takeover” as identified in the Connecticut General Statutes Section 16-262. The takeover process has been effective in dealing with smaller (less than 1,000 population) community PWSs.

SDWA- Water Quality Regulations- Compliance- Accomplishments: The Safe Drinking Water Information System (SDWIS), which maintains drinking water quality data, was installed in 1999 and is upgraded periodically. The DPH has also initiated an electronic data interchange (EDI) program to accept water quality data electronically from labs. All public water systems are required to submit drinking water quality data electronically to the Drinking Water Section starting January 1, 2006.

SDWA- Water Quality Regulations Compliance- Analysis: In calendar year 2004, the DWS issued 406 violations to 241 PWS for Maximum Contaminant Level (MCL) exceedances. Fifty-five were CWS's and 186 NC PWS incurred MCL violations for this period. In calendar year 2004, the DWS also issued 10,284 violations to 1,059 PWS for failure to monitor and report water quality test results, and also issued 146 formal enforcement actions to PWS. These results are indicative of our focus of using water quality violations to assess capacity.

Modifications to Strategy: No modification to the current strategy is necessary. Improvements in SDWIS and EDI are anticipated to facilitate compliance monitoring. Effective January 1, 2006, in accordance with the Connecticut Public Health Code, all public water systems are required to submit drinking water quality data electronically to the Drinking Water Section.

Drinking Water State Revolving Fund (DWSRF)

The EPA offers states capitalization grants to create the DWSRF Programs. This program allows States to provide low interest loans to Public Water Systems (PWSs) for infrastructure improvement projects. The DWSRF also provides set-aside funding for administration and augmentation of the program, assistance to small water systems and local health department administration activities. The primary purpose of the program

is to provide loans. By combining the DWSRF Capitalization Grants and Connecticut's Leveraging Program, Connecticut has executed \$61.7 in loans to PWSs.

The DPH is currently using DWSRF funds for drinking water projects (69%) and set-aside activities (31%). The percentage of funds allocated toward the set-aside activities is the maximum allowed. The set-aside categories is as followed:

Small System Technical Assistance (2%) – Providing technical assistance to small (less than 10,000 population) water systems. The Technical Assistance set-aside has been primarily dedicated to outreach activities and in the last two years included security measures.

Administration (4%) – Funding used toward the administration of the DWSRF Program. Staff supported by this set-aside includes programmatic and financial staff at the Department of Public Health, Department of Environmental Protection and the Office of the Treasurer. Additional staff that works in this program and not supported by this set-aside are from the Office of Policy and Management and the Department of Public Utility Control.

Program Management (10%) – Assists in the administration of the State's Public Water Supply Supervision Program.

Local Assistance and Other State Programs 15% - Provides assistance to PWS as part of the capacity development strategy as well as the Source Water Protection Program.

DWSRF- Accomplishments: The accomplishments by programs funded by DWSRF Set-Asides have ranged from outreach to trainings to attending stake-holders meetings and other forms of technical assistance and are listed in other sections of this report

DWSRF – Analysis (Projects): The DWSRF successfully provided low interest loans for drinking water projects. The DWSRF has provided 24 loans to 15 different PWSs, totaling \$61,756,582 for proactive infrastructure upgrades, source protection, distribution system protection, water quantity and water quality issues. Projects were assigned the highest points that were designed to bring the PWS into compliance with the Connecticut Public Health Code. The Drinking Water Section intends to increase funding and enhancement of the process of fund dispersal to low cost projects for small PWSs. It was determined, through our program, that the current DWSRF funding mechanisms were too costly to be an effective tool for small systems.

Modifications to Program Strategy: The Drinking Water Division is investigating creation of additional funding mechanisms to provide low interest loans to small systems, allowing these smaller PWSs to take advantage of the DWSRF. The general program will continue to evolve and will look at how other states run their DWSRF Program and incorporate it into our strategy.

Non-Community Program

The NTNC program has a high public health priority, consistent with EPA's position that the regulation of NTNCs is an equivalent priority as small community PWS (population of less than 10,000 people). The premise for this priority is that in NTNCs, the same individuals are consistently and regularly exposed to the system's drinking water quality. Often NTNCs are facilities that serve the most vulnerable individuals in our society; the very young, the very old, and often those who may be medically compromised. NTNC facilities can include schools, day care centers, medical facilities, commercial and industrial establishments, senior centers, etc. Connecticut has 2,314 NC systems, (639 NTNC and 1675 TNCs).

Non-Community Program- Accomplishments: The Section's non-community staff continued its initiative of training local health authorities statewide in various drinking water issues related to non-community and small community PWSs. Under this initiative, staff engineers provided hands-on sanitary survey training to individual local health departments (LHD). During these training events Sanitary Engineers from the Section

performed on-site inspections of TNC systems in the respective jurisdictional areas of each health department. These inspections focused on food service establishments for which local health departments license and have enforcement authority with regard to well construction and the purity and adequacy of the water supply as outlined in Section 19-13-B42(g) of the Regulations of Connecticut State Agencies (RCSA). Where appropriate, local enforcement actions were taken to correct water system deficiencies identified in these sanitary surveys. These efforts were initiated in an attempt to provide LHDs the necessary training to assist the DWS in identifying and correcting deficiencies at these small public water systems. In many instances LHDs played a significant role in getting many of these TNC systems connected to Community Public Water Systems and abandoning their on-site wells. This type of training continues to be a successful process in raising local attention to drinking water issues, gaining assistance from local authorities in obtaining compliance, and helping to assure that new PWSs are constructed to proper design standards.

Non-Community Program- Analysis: This type of training continues to be a successful process in raising local attention to drinking water issues, gaining assistance from local authorities in obtaining compliance, and helping to assure that new PWSs are constructed to proper design standards. The Program's cooperative working relationship with local health departments allowed program objectives to be met.

Modifications to Strategy: No modification to the current strategy is necessary.

Certificate of Public Convenience and Necessity and "Take-Overs"

The DPH and the DPUC jointly administer the CPCN process under authority of Connecticut General Statutes (CGS) Section 16-262m. New proposed PWSs and existing PWSs undergoing expansion are required to apply for a CPCN. This is commonly referred to as the "certificate process." The process restricts the creation of new small water systems by encouraging feasible interconnections with existing PWSs and by establishing a set of regulations for approval of the proposed water system's design and management if an applicant cannot interconnect with an existing utility.

The entire CPCN application is separated into three phases: Phase I-A, Phase I-B, & Phase II. The Phase I-A application requirements are for review of the proposed sources of supply to serve the proposed project (i.e. well site locations).

The next step in the process is to submit the requirements of Phase I-B. The Phase I-B requirements are for review of the developed sources of supply. This part of the process reviews the well construction, well water yield, and water quality. All sources must have satisfactory water quality and be able to supply a sufficient amount of water to meet the system requirements.

The final step in the process is to submit the requirements of Phase II. The Phase II requirements are for review of the design of the water distribution system. This part of the process includes review of the storage, pumping facilities, distribution piping, and if necessary, treatment facilities.

Part of the certificate process also reviews and evaluates whether the applicant for the proposed project understands the responsibility and requirements involved with owning and operating a PWS. That is, whether the applicant has the 'capacity' to develop and maintain a viable PWS that will remain in compliance with all applicable regulations once the water system is operational. Overall capacity is separated into three categories – technical, managerial, and financial. These three categories are interrelated in the overall operation of a water system through short- and long-term planning, assurance of sufficient supply and infrastructure for the future, and meeting regulatory responsibilities in order to provide safe and adequate drinking water.

In the past, formal application forms were not available for submitting information within this process. Over the past year, DPH and DPUC staff have worked together to develop application forms for each phase of the CPCN process. Separate sets of forms were developed for Community PWS and Non-Community PWS projects. These forms identify all the information necessary for review of each phase. The regulations associated with CPCN review set maximum amounts of time allowed for review of each Phase once a

complete application is received. The intent of these forms is to shorten the lag time for review by ensuring that all necessary information is initially submitted completely.

The failure of an existing PWS to comply with either DPUC and/or DPH regulations could require joint hearings to determine the systems economic viability. If it is determined that the water system is not viable, the DPUC, with DPH's consultation, may order the acquisition of the water system by the most suitable or private entity. This process is often referred to as the "takeover" procedure.

Certificate of Public Convenience and Necessity and "Take-Overs" - Accomplishments: The CPCN process has limited the proliferation of new PWSs. The continued success of this process, coupled with other program elements, is indicated by the generally reduced number of PWSs. During the time period 7/1/04 – 6/30/05, 15 Phase I-A CPCN projects were received and assigned docket numbers by the DPUC for initiation of review. Capacity assessments were initiated on those 15 projects. Seven (7) are CWS, two (2) NTNC, and six (6) TNC systems. In addition, one existing non-public water system was evaluated for capacity in anticipation of it becoming a TNC PWS.

Thirteen (13) development projects were screened to determine if the projects would result in the creation of PWSs and, if so, were feasible interconnections with existing CWSs available. It was determined that eight (8) proposed water companies could not be feasibly served by a main extension or interconnection with an existing CWS. It was also determined that those eight (8) projects would result in the creation of PWSs and were referred for initiation of the CPCN process, however, not all developers submitted their CPCN Phase I-A applications before 6/30/05. One screening determined that the project was not creating a new PWS. Four (4) screenings resulted in proposed PWSs connecting to adjacent existing PWSs. Two additional community CPCN projects were reactivated from previous submissions. One additional project for a new community system did not meet the criteria for a CPCN.

Certificate of Public Convenience and Necessity and "Take-Overs" - Analysis: The certificate projects and "takeovers" have resulted in more viable systems. 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. The Compliance Section has turned over, through the viability review and hearing process, seven (7) troubled community water systems to the ownership and management of viable large water systems since 2003.

Modifications to Strategy: The Certificate process is generally extremely useful in preventing the creation of non-viable systems. Revisions made to the CPCN process will more effectively and efficiently review proposed water system's design and management.

Enforcement

Protection of the public health is the fundamental purpose for all of our regulatory requirements and is the major criteria used in establishing priorities for implementation of enforcement actions. The population at risk is also considered in the prioritization of enforcement actions. Consideration of population at risk allows the DPH to maximize public health protection by placing higher priority for enforcement actions on larger public and risk-sensitive small populations, (e.g., nursing homes, day care centers, and schools). A PWS's inability to provide potable water to its customers may potentially result in the initiation of acquisition or takeover proceedings against the failing system. Formal enforcement actions may be used to bring CWSs into compliance with regulatory requirements.

Enforcement - Accomplishments: The DPH's enforcement strategy was revised and submitted to EPA Region I, and approved on 8/31/01. The DPH strategy incorporates the TNC enforcement procedures and both are consistent with our Capacity Development Strategy. This new enforcement strategy establishes the criteria and steps to be followed in the enforcement of applicable Connecticut State statutes and regulations. This strategy has

proven to be beneficial in improving compliance with recalcitrant PWSs and has resulted in approximately 16218 MCL and Monitoring and Reporting violations in the 2004-2005 fiscal year and the issuance of 146 formal enforcement actions in calendar year 2004. US EPA has required annual violation reports and SDWIS enforcement requirements and all have been consistently met. Quarterly meetings with EPA Enforcement staff have also been implemented and are successful in evaluating the success of enforcement efforts.

Enforcement Analysis: Enforcement has been effective in promoting and improving compliance. Enforcement actions have proven to be a valuable tool and an incentive for a PWS to take necessary long-term corrective actions. Public notification and certified operator requirements have been particularly positive aspects of administrative orders.

Modifications to Strategy: No modification to the current strategy is necessary.

Public Outreach

This Program serves as a primary resource for informational, technical and educational support for the DPH including developing and disseminating press releases, publications, (fact sheets, brochures, pamphlets), public and private partnerships, external and internal training, electronic public information services (i.e. email, Internet, DPH Health Alert Network), technical assistance initiatives, planning and assessment, and Drought\Conservation Status reports. The program coordinates with PWSs, businesses, trade associations, etc. to provide speakers and/or to initiate conferences and workshops. The DPH has utilized various public education techniques, e.g. contracted activities, as well as in-house efforts to develop seminars that encourage public, as well as stakeholder, participation.

Public Outreach- Accomplishments: The Program was successful in initiating and managing a Statewide program that provides training, education, and technical assistance information to Connecticut's PWS that serve less than 10,000 people. The Division participated in various educational forums; outreach materials were developed in a series of introductory pamphlets outlining various activities of the DPH. Information was made available to the public as well as PWS owner/operators, at forums, school presentations, during sanitary surveys, etc. The Technical Assistance Contracts proved to be successful in performing sanitary surveys of the small systems, coordinating Advisory Committee meetings to determine the baseline knowledge of Connecticut's local officials regarding PWS issues, and providing information to these constituents. Focus of the meetings centered on system capacity, technical assistance, and consolidation/take over proceedings, addressing technical and management needs of small PWSs, and addressing regulatory issues. The Drinking Water Advisory Committee was established in 2001 to serve as a public advisory vehicle for DPH initiatives.

Public Outreach- Analysis: The educational forums conducted were all extremely successful. This was proven by the full capacity for each program conducted statewide and the positive comments provided by the participants. The DPH was able to address and provide information for many issues the participants had concerns about. The emphasis the DPH has placed on educating Connecticut's local town officials about drinking water issues will continue during 2005.

Modifications to Strategy: No modification to the current strategy is necessary. However, additional resources will be applied to electronic communications and security.

Information Management/Information Technology

A separate information management function was established in 1998 to address anticipated growth in data processing and retrieval of data. This functional unit has 3 assigned positions that provide a variety of services to assure that data necessary for compliance determination is accessible.

Information Management/Information Technology- Accomplishments: The SDWIS that was installed in 1999 has become the sole database of record for all drinking water information. SDWIS maintains all aspects of drinking water from inventory to water quality to violations and enforcement, and reports directly to EPA using SDWIS. Connecticut's DPH is a national leader in this area.

The DPH began an EDI program to accept water quality data electronically from water testing laboratories. Presently the DPH receives data electronically from eight labs that handles water testing for thousands of public water systems. All public water systems are required to submit drinking water quality data electronically to the Drinking Water Section starting January 1, 2006.

The Drinking Water Geographical Information System (DWGIS) was initiated in February 2003 and was complete and available to all DWS staff on May 1, 2003. This new GIS based system links SDWIS, the SWAP assessments reports and GIS information into one intranet application available to the entire staff of DWS

Information Management/Information Technology- Analysis: Technology provides tools to perform tasks in a more effective and efficient manner. The EDI implementation will allow for engineering efforts to be executed in other DWS program areas.

Modifications to Strategy: No further modification is necessary.

New System Report Since 2002

PWSID	PUBLIC WATER SYSTEM	ASSOCIATION	CLASS.	TOWN	DATE FIRST IDENTIFIED	SNC LIST?
CT0010111	WHISPERING HILLS, LLC - WELL D SYSTEM	Multiple System	C	ANDOVER	1/14/2004	
CT0039021	EVANGELICAL BAPTIST CENTER - RESIDENTIAL	Multiple System	C	ASHFORD	1/22/2004	
CT0039023	EVANGELICAL BAPTIST CENTER - REC CENTER	Multiple System	NTNC	ASHFORD	1/22/2004	
CT0055071	FOXRIDGE APARTMENTS-WELL 2	Multiple System	C	BARKHAMSTED	1/23/2004	
CT0105043	WOODHALL SCHOOL-WELL 2	Multiple System	NTNC	BETHLEHEM	1/22/2004	YES
CT0119231	KENMORE ROAD ASSN.-LOWER SYSTEM	Multiple System	C	BLOOMFIELD	1/23/2004	
CT0189833	RODINO, LLP - THE GODDARD SCHOOL	NEW SYSTEM	NTNC	BROOKFIELD	11/25/2002	
CT0189843	1087 FEDERAL ROAD	NEW SYSTEM	NTNC	BROOKFIELD	7/27/2004	
CT0189853	1112 FEDERAL ROAD	Existing System	NTNC	BROOKFIELD	10/12/2004	
CT0189863	1114 FEDERAL ROAD	Existing System	NTNC	BROOKFIELD	10/12/2004	
CT0209311	BURLINGTON SENIOR HOUSING	NEW SYSTEM	C	BURLINGTON	1/2/2003	
CT0210023	FALLS VILLAGE DAYCARE (TOWN OF CANAAN)	Existing System	NTNC	CANAAN	4/17/2003	
CT0229031	CAMPBELL HEIGHTS APARTMENTS - SYSTEM #2	Multiple System	C	CANTERBURY	1/15/2004	
CT0229041	CAMPBELL HEIGHTS APARTMENTS - SYSTEM #3	Multiple System	C	CANTERBURY	1/15/2004	
CT0235071	GREENWAY APARTMENTS-BUILDING 302	Multiple System	C	CANTON	1/22/2004	
CT0320181	COVENTRY HOUSING AUTHORITY-UPPER SYSTEM	Multiple System	C	COVENTRY	1/15/2004	
CT0331123	PUMPKIN PATCH CHILDCARE& LEARNING CENTER	Existing System	NTNC	CROMWELL	4/1/2005	
CT0340013	UNITED METHODIST CHURCH OF DANBURY	Existing System	NTNC	DANBURY	4/21/2003	
CT0347051	AQUA VISTA ASSOC, INC - LOWER SYSTEM	Multiple System	C	DANBURY	1/12/2004	
CT0363031	RIDGEWOOD HILLS ASSOCIATION, SYSTEM #2	Multiple System	C	DEEP RIVER	1/14/2004	
CT0363041	RIDGEWOOD HILLS ASSOCIATION, SYSTEM #3	Multiple System	C	DEEP RIVER	1/14/2004	
CT0363051	RIDGEWOOD HILLS ASSOCIATION, SYSTEM #4	Multiple System	C	DEEP RIVER	1/14/2004	
CT0363063	THE CLUBHOUSE OF CT RIVER VALLEY	Existing System	NTNC	DEEP RIVER	9/29/2004	
CT0389143	HOBSON MOTZER, INC.	Existing System	NTNC	DURHAM	9/9/2004	
CT0408021	METACOMET HOMES-WELL 2	Multiple System	C	EAST GRANBY	1/22/2004	
CT0419183	NATHAN HALE-RAY MIDDLE SCHOOL-RAY WING	Existing System	NTNC	EAST HADDAM	12/24/2003	
CT0429113	MASONIC TEMPLE ASSN OF EAST HAMPTON	Existing System	NTNC	EAST HAMPTON	7/17/2002	
CT0429123	240 MIDDLETOWN AVE LLC	Existing System	NTNC	EAST HAMPTON	5/5/2005	
CT0609053	NORTH GUILFORD CONGREGATIONAL CHURCH	Existing System	NTNC	GUILFORD	7/18/2002	
CT0609073	MELISSA JONES SCHOOL - WELL #2	Multiple System	NTNC	GUILFORD	12/24/2003	
CT0672043	HEBRON CENTER NURSERY SCHOOL	Existing System	NTNC	HEBRON	9/10/2004	
CT0719111	LEBANON PINES, SYSTEM #2	Multiple System	C	LEBANON	1/14/2004	
CT0760041	GROVE SCHOOL - SYSTEM #2	Multiple System	C	MADISON	3/24/2004	
CT0769193	THE LEARNING VILLAGE, INC.	NEW SYSTEM	NTNC	MADISON	11/25/2002	
CT0769203	1,2,3 GROW WITH ME	Existing System	NTNC	MADISON	4/4/2003	
CT0787023	COMMUNITY CHILDRENS CENTER	NEW SYSTEM	NTNC	MANSFIELD	4/30/2004	
CT0798023	JONES HOLLOW MEDICAL COMPLEX	NEW SYSTEM	NTNC	MARLBOROUGH	7/22/2003	
CT0859043	STEVENSON LUMBER - GARAGE & LOCKER ROOM	Existing System	NTNC	MONROE	1/9/2004	
CT0859053	THE WATERVIEW	NEW SYSTEM	NTNC	MONROE	7/21/2004	
CT0869083	WATERVIEW BUSINESS PARK	NEW SYSTEM	NTNC	MONTVILLE	11/25/2002	
CT0869093	CREATIVE CARE DAYCARE, LLC	NEW SYSTEM	NTNC	MONTVILLE	8/8/2003	
CT0979343	LITTLE EXPLORERS DAY CARE	Existing System	NTNC	NEWTOWN	5/5/2005	
CT1030183	UNITED CONGREGATIONAL CHURCH	Existing System	NTNC	NORWALK	3/17/2005	
CT1059193	EASTPORT - WEST 2	Existing System	NTNC	OLD LYME	11/20/2002	
CT1099131	MOOSUP MANOR	Existing System	C	PLAINFIELD	8/13/2002	
CT1149033	PRESTON VETERANS MEMORIAL SCHOOL	NEW SYSTEM	NTNC	PRESTON	1/9/2003	

CT1160013	PUTNAM SCHOOL OF EARLY LEARNING	Existing System	NTNC	PUTNAM	9/13/2002	
CT1169023	PUTNAM CHRYSLER DODGE JEEP	Existing System	NTNC	PUTNAM	9/30/2004	
CT1169033	554 LIBERTY HIGHWAY	Existing System	NTNC	PUTNAM	12/2/2004	
CT1180013	BARLOW MOUNTAIN & SCOTLAND ELEM SCHOOLS	NEW SYSTEM	NTNC	RIDGEFIELD	7/11/2003	
CT1189201	RURAL WATER CO, INC-SCODON - WELL #4	Multiple System	C	RIDGEFIELD	1/12/2004	
CT1189301	RURAL WATER CO, INC-SOUNDVIEW- INTERCONN	Multiple System	C	RIDGEFIELD	1/15/2004	
CT1189401	WARREN ARTHUR PROPERTIES - WELLS 2 & 3	Existing System	C	RIDGEFIELD	11/29/2004	
CT1189501	WARREN ARTHUR PROPERTIES - WELL 1	Existing System	C	RIDGEFIELD	11/29/2004	
CT1200013	162 BAKER ROAD	Existing System	NTNC	ROXBURY	4/17/2003	
CT1219111	SALEM MANOR CONDOMINIUMS, SYSTEM #2	Multiple System	C	SALEM	12/2/2003	
CT1270013	LITTLE MUNCHKIN DAY CARE	Existing System	NTNC	SHERMAN	7/2/2003	YES
CT1299021	TOWN OF SOMERS - SOMERSVILLE SYSTEM	Multiple System	C	SOMERS	1/22/2004	
CT1299031	TOWN OF SOMERS - RYE HILL SYSTEM	Multiple System	C	SOMERS	1/22/2004	
CT1301113	FIRST STEPS DAY CARE & LEARNING CENTER	Existing System	NTNC	SOUTHBURY	2/10/2003	YES
CT1320243	LEARNING CENTER, LLC.	Existing System	NTNC	SOUTH WINDSOR	10/22/2002	
CT1320263	OAKLAND PRESCHOOL CENTER, INC.	Existing System	NTNC	SOUTH WINDSOR	6/18/2003	
CT1341313	WILLINGTON NAMEPLATE, INC.	Existing System	NTNC	STAFFORD	8/4/2003	
CT1378063	OPEN DOOR BAPTIST CHURCH	Existing System	NTNC	STONINGTON	8/27/2004	
CT1419053	MARIANAPOLIS PREP SCHOOL - ADMIN/SCHOOL	Multiple System	NTNC	THOMPSON	1/20/2004	
CT1429171	VILLAGE AT CRYSTAL SPRINGS	NEW SYSTEM	C	TOLLAND	9/27/2004	
CT1429191	TOLLAND WATER DEPT - TORRY ROAD	Multiple System	C	TOLLAND	3/24/2003	
CT1489043	1105 NORTHRUP ROAD	Existing System	NTNC	WALLINGFORD	10/22/2002	
CT1489053	BUILDING BLOCKS LEARNING CENTER	Existing System	NTNC	WALLINGFORD	7/3/2003	
CT1501013	DEVEREUX GLENHOLME SCHOOL - MAIN CAMPUS	Multiple System	NTNC	WASHINGTON	1/5/2004	
CT1501111	RUMSEY HALL SCHOOL	Multiple System	C	WASHINGTON	1/15/2004	
CT1606211	WILLINGTON RIDGE CONDOS - SYSTEM #2	Multiple System	C	WILLINGTON	1/13/2004	
CT1620233	SBC - WINCHESTER	Existing System	NTNC	WINCHESTER	4/16/2003	
CT1660013	WOLCOTT PUBLIC WORKS	Existing System	NTNC	WOLCOTT	11/28/2003	YES
CT1660584	464 WOLCOTT ROAD(FPC PROPERTY)	Existing System	NTNC	WOLCOTT	7/31/2003	
CT1669071	RSK REALTY 3	Multiple System	C	WOLCOTT	12/30/2003	
CT1670173	125-131 BRADLEY ROAD	Existing System	NTNC	WOODBURY	10/8/2004	
CT1686091	TOWN IN COUNTRY CONDOMINIUMS - LOWER SYS	Multiple System	C	WOODBURY	1/7/2004	
CT1686093	EARLY LEARNING CENTER OF WOODBURY	Existing System	NTNC	WOODBURY	4/1/2003	
CT1691111	BROOKWOOD APARTMENTS - SYSTEM #2	Multiple System	C	WOODSTOCK	1/14/2004	
CT1691171	HYDE SCHOOL - SYSTEM #2 (RESIDENTIAL)	Multiple System	C	WOODSTOCK	1/14/2004	

- = Multiple systems (32) -> were part of an existing system, but split off due to a multiple system
- = Existing systems (37) -> PWS we were not aware of previously
- = New systems (12)

Capacity Development Strategy – Evaluation

“A Quick Analysis”

EPA is increasingly scrutinizing the DWS Capacity Development Program. With every Federal dollar comes an increased responsibility to report and justify use to the EPA. The September 30, 2003 Office of Inspector General Evaluation (OIG) Report “Impact of EPA and State Drinking Water Capacity Development Efforts Uncertain”, has fueled this situation. In addition, as a direct result of the OIG report, EPA has established a national committee, under side direction from the OIG, of all States Capacity Development Coordinators in an attempt to establish national reporting measures as a direct response to the OIG report recommendations.

All of this federal activity has in wave affect caused the DWS the need to quickly produce a strategy concept that could address all of the identified issues and concerns noted by the 2003 OIG Evaluation Report to assist in the development of a re-furbished DWS, Connecticut Capacity Development Program. Most of the information you know already, but the true intent is to solidify all of the “ideology” of Capacity Development, and identify the key operational components that require the DWS to develop performance measures for, and in some cases completely new initiatives.

Introduction:

Congress amended the SDWA in 1996, providing for a variety of initiatives to assist States and public water systems in providing safe drinking water to the public. Capacity development, the Drinking Water State Revolving Fund (DWSRF), operator certification programs, and such resources as the Environmental Finance Centers and Small System Technical Assistance Centers, were instituted to provide assistance to States and community water systems. Congress established capacity development with the intent of focusing on those systems most in need of assistance. These were primarily small systems (serving populations of 3,300 or less).

In 2000, small systems accounted for 90 percent of all systems that had a “History of Significant Noncompliance” (a system violating one or more National Primary Drinking Water Regulations in any three quarters within a 3-year period). All three components of capacity development (technical, managerial, and financial) are critical to the successful operation of community water systems. EPA stresses the interrelated nature of T/M/F capacity. EPA, States, and drinking water systems house T/M/F expertise in different program areas at different levels. The success of water systems’ achieving capacity to run their operations in an efficient, business-like manner rests on water system owners and operators being able to effectively understand, communicate, and coordinate the various T/M/F needs. States, through the design and implementation of their capacity development strategies, have approached capacity development in different ways, to meet the unique issues facing their systems.

Capacity Development Ideology:

A Capacity Development Program for us can be:

- **Flexible** so that we can maximize the use of resources and capabilities to implement processes that meet the unique needs of our PWS’s.
- **Proactive** in identifying and prioritizing those water systems most in need of improving T/M/F capacities.
- **Integrated** so that the resources of all Units are utilized.
- **Accountable** in being able to demonstrate that a capacity development strategy helps water systems provide safe water to customers.

The actual amendment to the SDWA in 1996 states these same four attributes of capacity development:

1. **Flexibility** was identified in the findings section of the Amendments, Public Law 104-182 §3(4), which stated: States play a central role in the implementation of safe drinking water programs, and States need increased financial resources and appropriate flexibility to ensure the prompt and effective development and implementation of drinking water programs.
2. **Proactivity** was required in the capacity development section of the Amendments, Public Law 104-182, §1420(c)(2)(A), which stated: In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate – (A) the methods or criteria that the State will use to identify and prioritize the public water systems most in need of improving technical, managerial, and financial capacity.
3. **Integration** was identified in the findings section of the Amendments, Public Law 104-182, §3(8)(B), which stated: [M]ore effective protection of public health requires...maximizing the value of the different and complementary strengths and responsibilities of the Federal and State governments in those States that have primary enforcement responsibility for the Safe Drinking Water Act.
4. **Accountability** was required in the capacity development section of the Amendments, Public Law 104-182, §1420(c)(1), which stated: ...State[s] shall receive only [a portion] of the allotment that the State is otherwise entitled to receive under [DWSRF], unless the State is developing and implementing capacity development strategies that assist water systems in acquiring and maintaining technical, managerial, and financial capacity.

There is no mandate that all four attributes need to be present to the same degree for capacity development programs to be successful. However, it is logical to believe that the combined presence of these attributes promotes a capacity development process that assists public water systems in attaining T/M/F capacity.

Operational Components:

The SDWA Amendments give four sequential, closely linked activities that describe how States can provide proactive capacity assistance to community water systems that can be focused on those systems most in need:

- Assessing water system T/M/F capacities.
- Prioritizing systems based on their capacity needs.
- Delivering T/M/F capacity development services to systems most in need.
- Collecting information to determine whether water systems are achieving results.

To utilize these activities, some of the most useful tools the DWS has are sanitary surveys, source water assessment, SDWIS, review of water system planning when a system is new or expanding, applying for a DWSRF loan, and when a PWS is experiencing problems. All could be used for assessing water system capacity.

DWS Strengths:

Based on the OIG report, which has been interpreted as negative to EPA and indirectly towards most States activities, the DWS has the strong identified components of a good capacity development program.

The DWS has available the following units and the associated activity:

1. Compliance: sanitary survey and technical assistance.
2. Design Unit: new or expanding water system plan review
3. Enforcement: identification of systems most in need of assistance
4. DWSRF: DWSRF loan
5. Operator Certification: ensuring professional delivery of drinking water
6. Source Water Protection: source water technical issues.

7. 2% Small System Technical Assistance Set-Aside: addresses small system owners, operators and other stakeholders.
8. SDWIS: PWS data

DWS Weaknesses:

Currently the DWS has within its identified components the following weaknesses:

1. The sanitary survey is for compliance-oriented activities and is not related to capacity development. Although all States are required to use sanitary surveys to perform compliance assessments of public water systems, sanitary surveys may also be used to perform assessments of the managerial and financial capacity of water system management and operators. The DWS is successful in identifying significant deficiencies identified as part of the sanitary survey, but definitions for managerial and financial significant deficiencies do not exist. The managerial and financial assessments are just as important as technical, and these deficiencies are still a part of protecting public health.
2. Operators are responsible for the day-to-day management of a water system's technical operations and, therefore, are critical to ensuring the drinking water delivered to the public is safe. These operators also can be responsible for the management and financial budgets of systems, and can be a critical link to water boards and directors. All three aspects of T/M/F should be incorporated into the training portion of the operator certification program. Operators may not be receiving any coordinated State guidance in the management and financial budgets of systems.
3. Although enforcement is highly active, we are missing the chance to require noncompliant systems to develop business plans that contain all three elements of capacity. We should also consider incorporated managerial and financial capacity requirements into our regulations, or include voluntary managerial and financial self-assessment as part of enforcement agreements. Enforcement is often seen as the last resort to address noncompliant water systems; our State enforcement program can be used to promote long-term managerial and financial capacity with systems.
4. When the DWS reviews plans, a method of assessment and prioritization should be followed, that also delivers T/M/F assistance to water systems through capacity development plans. The DWS maybe only delivering managerial and financial assistance to systems once a technical deficiency is identified.
5. EPA requires that DWSRF loans go to systems that either have adequate capacity or will achieve capacity through the loan project. The Drinking Water National Information Management System that EPA uses to track the DWSRF program cannot determine what T/M/F problems the loans were used to solve. Neither can the DWS. Furthermore, the DWS capacity information about the DWSRF program is focused mostly on the financial ability of systems to access and repay the loans, with no focus on the assessing and measuring of the overall T/M/F health of systems.
6. DWSRF-Set Asides need new initiatives with a method of assessment and prioritization.
7. The SWP efforts are strong, however the DWS does not apply any measure for managerial and financial capacity in its design.
8. The 2% Small System Technical Assistance Set-Aside needs a new 4-year work plan.
9. SDWIS has many data related deficiencies that inhibit or prohibit use of that data for capacity development use in measurement and assessment of the overall T/M/F. One example is the lack of verified legal owner information.

Conclusion:

The DWS works to prevent technical deficiencies in water systems by providing assistance through activities such as conducting sanitary surveys. Although the DWS provides a strong technical assistance program, more effort toward assessing and delivering assistance to water systems is needed in developing system managerial and financial capacity.

The following activities should be used to revise the current Connecticut Capacity Development Program Strategic Plan:

1. Developing new performance measures to assess progress toward Connecticut Capacity Development Program Strategic Plan goals utilizing the DWS daily activities of sanitary surveys, source water assessment review, review of water system planning when a system is new or expanding, applying for a DWSRF loan, and when a PWS is experiencing problems;
2. Collect data on these capacity development performance measures (#1 above);
3. Analyze the data for reporting our capacity development performance results; and,
4. Develop an internal DWS Capacity Development Database utilizing the national CAPDAT identifiers for tracking all capacity development performance results.

With committed attention to these activities, the DWS can further develop its statewide capacity development strategy that promotes T/M/F in a proactive, integrated, flexible, and accountable manner throughout its key DWS Units.