

State of Connecticut
Department of Public Health
Drinking Water Section

Annual Capacity Development Report
for the period
July 1, 2011 – June 30, 2012



September 2012

Introduction:

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.

As such, the Strategy has been determined to be positive and will be maintained. A modification of the DWS Capacity Development Strategy (August, 2000) was drafted in the fall of 2010 to include a change in emphasis, redirection and elimination of some elements. These draft changes were sent to EPA Region 1 for review and comment in December of 2010. The DWS is awaiting the results of EPA's review prior to finalizing these modifications. Updated documents, procedures and program areas will need emphasis in the modified Strategy as the DWS moves forward. Although the changes and updates in the modified Strategy are necessary, overall, our implementation is still consistent with our original Environmental Protection Agency (EPA) approved Capacity Development Strategy.

The FY2012 annual on-going implementation report is formatted consistent with the Reporting Criteria for Annual State Capacity Development Program Implementation Reports provided by the EPA's Office of Ground Water and Drinking Water. One exception to this format is Section A.3. where references to EPA's old Significant Non-Compliance (SNC) list have been replaced with the newer Enforcement Targeting Tool (ETT) criteria as requested by EPA Region 1 during 2011. The following sections are arranged to reflect this reporting criteria.

A. New Systems Program Annual Reporting Criteria

1. *Has the State's legal authority (statutes/regulations) to implement the New Systems Program changed within the previous reporting year? If so, please explain and identify how this has affected or impacted the implementation of the New Systems Program. Additional documentation, including an Attorney General (AG) statement or a statement from a delegated department attorney, may be required. If not, no additional information on legal authority is necessary.*

Answer: The State's legal authority to implement the New Systems Program has not changed.

2. *Have there been any modifications to the States' control points? If so, describe the modifications and any impacts these modifications have had on the implementation of the New Systems program. If not, no additional information on control points is necessary.*

Answer: There have been no modifications to the State's control points.

3. *List new systems (PWSID & Name) in the State within the past three years, and indicate whether those systems have been on any of the annual Enforcement Targeting Tool (ETT) lists (as generated annually by EPA's Office of Enforcement and Compliance Assurance).*

Answer: Attachment 1 provides the list of new systems created through the Certificate of Public Convenience and Necessity (CPCN) regulatory process during the period of July 1, 2009 and June 30, 2012. Also included on Attachment 1 for this same period are:

- the newly discovered existing water systems that were identified by the DWS, and;

- new non-connected public water systems (i.e. satellite systems) created by existing regulated public water systems (PWS) that were technically (engineering) approved by this office, but did not need financial or managerial capacity evaluations.

Attachment 1 also indicates if the PWSs appeared on the ETT list.

Twenty (20) new systems were created during the period of July 1, 2009 to June 30, 2012 through the CPCN process. These systems received comprehensive technical, managerial and financial capacity evaluations. None of these PWSs were identified on the annual ETT lists during this period.

Ninety-nine (99) systems are listed on Attachment 1. Most of these were newly discovered existing systems that were identified after the systems had been built and placed into operation. The vast majority were non-community systems that had been in operation for many years. Some of these systems were existing commercial properties that changed ownership and business operations which subsequently resulted in them becoming PWSs by exceeding the population threshold. Four (4) of the 99 systems have been on the ETT list with 11 or more points. A system at or above 11 points is considered a priority system for an enforcement response under the new EPA Enforcement Response Policy. Three (3) of the four systems with greater than 11 points are community public water systems that have been in existence for several decades, were recently discovered by the DWS, and did not go through the CPCN process. All three have now hired certified operators to oversee their operations. Two (2) of these 3 systems are under Consent Order and all 3 have returned to compliance regarding the monitoring and reporting violations that they incurred. The fourth system is a transient non-community public water system that was developed in 2010 and approved locally without going through the CPCN regulatory review process. This system did have a total coliform (acute) MCL violation in 2011 and continues to have total coliform MCL violations in 2012; therefore they have not returned to compliance. The DWS did consult with the municipality that approved this new system to ensure that future local approvals for similar systems are not issued until DPH has issued a CPCN.

Based on the data presented some conclusions were drawn:

- 99 new systems were added to Connecticut's PWS inventory during the period of 7/1/09 to 6/30/12.
- 4 of the 99 (4%) new systems were identified on a Federal ETT list during the period of 7/1/09 to 6/30/12.
- 3 of the 4 (75%) ETT systems were the result of monitoring and/or reporting violations for drinking water quality testing.
- Although the DWS believes the existing CPCN regulatory review process for new systems adequately addresses a new system's understanding of their water quality monitoring/reporting requirements, it does not guarantee these violations will not occur after the system is operational.
- 100% of the ETT systems were small systems.
- 3 of the 4 (75%) new systems that became ETTs as a result of monitoring and/or reporting violations are CWSs systems that now have a certified operator responsible for the system's water quality monitoring and reporting compliance.
- The DWS continues to evaluate its existing small system operator training curriculum to determine if sufficient emphasis and content is included on water quality monitoring and reporting to help reduce violations.

- 1 of the 4 (25%) new systems is on the ETT list as a result of a Total Coliform Acute MCL violation, is a transient non-community (TNC) system and is not required to have a certified operator. The DWS provides technical assistance to these systems to return them to compliance in addition to providing web-based access to all PWSs' water quality monitoring and reporting compliance schedules.
- Continued education is necessary at the local level to ensure that new development projects proposed by future water companies are identified and referred through the CPCN process so that TMF evaluations are conducted.

B. Existing Systems Strategy

1. *In referencing the State's approved existing systems strategy, which programs, tools, and/or activities were used, and how did each assist existing PWS's in acquiring and maintaining TMF capacity? Discuss the target audience these activities have been directed towards.*

Answer: Descriptions of the DWS functional units, programs, tools and activities that assist public water systems with technical, managerial and financial capacity are provided in the following paragraphs.

The Drinking Water Section (DWS) is responsible for ensuring the purity and adequacy of the state's public drinking water systems and sources of supply including approximately 2,700 Public Water Systems' (PWS) and approximately 3,800 sources of public drinking water supply. Consistent with its federal and state drinking water mandates, the DWS oversees water quality monitoring and reporting, approves treatment systems, infrastructure upgrades and new sources of supply, source protection, water conservation, water supply planning and the completion of sanitary surveys. The DWS also funds a portion of the Laboratory Certification Program, housed within the Environmental Health Section which certifies and oversees the laboratories that test drinking water samples for regulatory compliance. The DWS provides technical services and web based information and educational materials to PWS's, local health departments and the public. The functional elements of the DWS work in concert to provide an effective means of not only regulating drinking water, but in providing the structure for improved drinking water system sustainability. The following programs reflect the organization of the DWS. They include:

Compliance Section

The Compliance Section is charged with the goal of ensuring that all community and non-community public water systems are implementing and complying with all state and federal mandates, and that the systems' capacity is maintained in the best feasible condition to afford and assure the safety and protection of public health. This assurance is managed in five integral units within the section.

1 and 2. Regional Units: Region 1 (South) and Region 2 (North)

Compliance Regions 1 and 2 are responsible for conducting routine sanitary surveys to assess the compliance and capacity for all of Connecticut's approximately 2,700 public water systems (PWS). Sanitary surveys are conducted every three years for Community PWS and every five years for Non-Community PWS. Both compliance regions are also responsible for conducting follow ups to sanitary surveys, priority sanitary surveys in response to acute MCL violations (E. Coli, nitrate/nitrite), responding to and reporting security and emergency incidents, handling customer complaints, and providing general technical assistance to PWS. Both regions refer serious and persistent violators for formal enforcement action, when necessary.

Review and approval of the design and construction of expanded water works, treatment facilities, and upgrades for all PWSs, as well as the design and construction of all new PWSs are additional water quality assurance activities coordinated through the two regional Supervising Sanitary Engineers. The DWS's engineers review and approve all treatment proposed by PWSs to correct exceedances of maximum contaminant or action levels or to mitigate water quality concerns related to aesthetics. The two Regional Units also provide oversight of mandatory filtration of all surface water supplies. Under the Surface Water Treatment Rule, all PWSs in CT are required to filter their surface supplies. DWS has reviewed and approved all filtration plants constructed or upgraded as a result of this rule. All surface supplies in CT have been filtered, or replaced by groundwater sources. To maintain consistency in the review and approval process, the "Guidelines for the Design and Operation of Public Water System Treatment, Works, and Sources, January 1999" document was developed (Document Outline – Appendix C). The purpose of the referenced guidance document is to provide review criteria to be utilized by DWS staff as the basis for approval of water supply projects. To meet the objective of protecting the public health, the guidance document was developed to ensure that drinking water facility construction and operations are in compliance with applicable CT Public Health Code Regulations, CT General Statutes, and other standards. In addition to providing engineering design standards, the guidelines include statutory regulatory requirements that must be complied with, and are legally enforced.

- *Security & Emergency Response*- provides oversight of the DWS's Water Emergencies Assessment and Response (WEAR) team. The WEAR team is trained in Incident Command and Emergency Response procedures and provides on-site technical assistance to public water systems during all types of emergencies. The Program is also responsible for coordination of the Drinking Water Emergencies & Security Advisory Committee (DWESAC) activities which is made up of representatives from the water industry, local health, law enforcement Connecticut Department of Emergency Management and Homeland Security, Connecticut Department of Public Health Office of Public Health Preparedness, EPA, FBI, and the U.S. Department of Justice.

3. Enforcement and Certification Unit

The Enforcement and Certification (EC) Unit is responsible for handling all enforcement actions for the DWS. The EC Unit also ensures that all PWSs are providing pure and adequate water by requiring that these systems are being operated by individuals who are certified to meet DPH requirements.

- *Enforcement*: The Enforcement Program is responsible for issuing violations of state and federal drinking water regulations including maximum contaminant level and action level exceedances, failure to monitor or report and public notification violations. The Enforcement Program also oversees the states Consumer Confidence Report (CCR) requirements for community PWSs. This program is responsible for preparing and issuing all formal enforcement actions (i.e., Notice of Violation with Civil Penalty, Consent Orders and Administrative Orders) for the DWS. The Enforcement Program is responsible for entering formal enforcement compliance requirements into the DWS database and tracking compliance with those requirements. Any follow-up that is required as a result of requests for Administrative hearings or referrals to the Office of Attorney General for court action are also handled by this program. This program provides quarterly updates to the Environmental Protection Agency (EPA) on systems that have been identified as priority systems for enforcement by the EPA Enforcement Targeting Tool and works closely with this federal agency on all enforcement activities.

Enforcement activities are coordinated through the Compliance Section's Supervising Environmental Analyst/Enforcement Coordinator. The DWS's approved 2001 Enforcement Strategy is utilized to provide consistency when initiating enforcement actions. The 2001 Enforcement Strategy document is a guide for enforcement of violations of state statutes and regulations dealing with PWSs. Enforcement actions are initiated against those systems that involve a public health hazard or risk. The population at risk is considered in the prioritization of enforcement actions. This will allow the DWS 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, schools). The 2001 Enforcement Strategy is currently being reviewed and revised to reflect DWS program reorganizations and changes in enforcement strategies.

- *Operator Certification:* The Operator Certification program is accountable for DPH oversight of the qualifications of individuals who operate and maintain PWSs. This program ensures that approximately 560 community and 580 non-transient non-community PWSs are operated by qualified and skilled certified operators. The DWS issues certifications for treatment plant operators based on criteria established in regulation. The Operator Certification program is responsible for the certification of distribution system operators and backflow inspectors and for providing training and guidance to certified operators related to their duties and responsibilities. Certification applicants must meet a combination of education, experience and examination requirements to become certified. DWS also exercises quality control over the certification examination. These requirements are specified in Departmental regulations, which include provisions for renewal, reciprocity and enforcement.

- *Operator Training* - conducts routine operator training classes for drinking water operators of water systems serving fewer than 3,300 persons, and participates in operator training programs offered by other training providers. Operators are required to maintain minimum training contact hours for the renewal of their certificate.
- Training sessions cover subject matter including operator duties/responsibilities, regulatory compliance, source protection, water quality, sampling, infrastructure components, customer service, safety and management. The unit also approves other operator training course providers, operator training course curriculum and coordinates internal staff training for the Section.

4. Information Systems Unit

The Information Systems Unit coordinates and is responsible for the operation, management and maintenance of the Section's various information databases and related activities as described below:

- *SDWIS Maintenance* - Ensure that the Safe Drinking Water Information System (SDWIS) is kept in good working order, maintained to eliminate down times, updated as necessary to support the section's reporting mandates to the EPA. Update and maintain the PWSs and other related entities (such as operators) inventory in SDWIS.

- *Develop and Track Public Water System Compliance Schedules* - Develop and maintain sampling, monitoring and operating schedules for all PWSs in compliance with applicable federal rules and state regulations. Track compliance with all applicable monitoring and reporting requirements and follow up with deficient systems.

- *Monitoring and Sampling Plans* - Oversee the reviews and approval of all monitoring and sampling plans submitted in compliance with federal or state mandates
- *DWGIS and Web page* - Oversee and maintain the operation of the Drinking Water GIS intranet system and the Section's webpage.
- *Project Tracking Database Development and Maintenance* - Lead the development of establishing and maintaining a database to track reporting requirements for public notifications, consumer confidence reports, water supply plans, sanitary surveys, certificate projects, cross-connection surveys and watershed surveys.

The data management activities within the Information Systems Unit include rule implementation, information system development and support and the investigation of new technology, according to State of Connecticut Software Management Policy Manual (Appendix B). Data management activities are reviewed by the DWS's Environmental Analyst 3/Data Management Coordinator and the Information System's Supervising Sanitary Engineer for approval.

SDWIS is the sole database of record for all Connecticut drinking water information and is used to enforce the federally mandated Safe Drinking Water Act. SDWIS maintains all aspects of drinking water from inventory to water quality to violations and enforcement and allows a standardized reporting format for PWS information. The SDWIS/STATE data management system was updated to SDWIS/State Version 3.1 in August 2012. The software will be updated as needed as new drinking water rules and regulations are promulgated. Routine upgrades ensure continued viability of business and efficiently manages new regulations which may impact public health protection.

The Data Management Program has implemented an Electronic Data Interchange (EDI) program to accept water quality electronically from water testing laboratories. As of January 1, 2006, the DWS required that all water quality data that can be sent electronically by means of the electronic data interchange. Electronic reporting and record keeping have a strong mandate in policy and law. Submission and storage of electronic data in lieu of paper documents greatly reduces the cost for both sender and recipient, improves data quality by automating quality control functions, eliminates re-keying, and greatly improves the speed and ease with which the data can be accessed by all who need to use it.

The DWS's Geographic Information System (GIS) is used in many planning and engineering areas, including the Water Utility Coordinating Committee (WUCC) process and the SWAP. The DWS intends to upgrade and maintain the GIS system as necessary.

The Information Systems Unit also maintains Laser fiche, an electronic document management system. Laser fiche is the primary repository for the Section's official documents and enables the Section to meet all State and Federal document retention requirements.

5. Capacity Development Unit

The Capacity Development Unit serves as a primary resource for informational and technical support for the DWS. The unit oversees the Drinking Water State Revolving Fund loan program, electronic public information services and small PWS technical assistance initiatives.

Distinct responsibilities of the Capacity Development Unit include:

- *Capacity Development* - Coordinates the provision of technical assistance and training to PWSs on capacity development initiatives including asset management, capital improvement planning, budgeting and rate setting that lead to long term sustainability. Activities ensure that PWSs have the technical, financial and managerial means to comply with state and federal requirements, provide safe and reliable drinking water to their customers and maintain or achieve long term sustainability.

- *Drinking Water State Revolving Loan Fund (DWSRF) Program* - provides low interest loans to eligible PWSs for sustainable drinking water infrastructure projects. The program is funded with annual capitalization grants from the EPA and executed loan repayment streams that are recycled through the program. The program is leveraged through bond sales conducted by the Office of the State Treasurer. Since the program's inception, the DWSRF financing program has made 52 loan commitments totaling approximately \$115.6 million. This includes 12 subsidized loans made during FY 2010 utilizing \$17.2 million in funding provided by the American Recovery and Reinvestment Act of 2009 (ARRA).

6. Grants and Administrative Support Unit

The Grants and Administrative Support unit coordinates section-wide activities such as grant management and progress reporting to EPA. The Unit also assists the DWS in providing and developing communication activities and publications (i.e. fact sheets, brochures, pamphlets, etc.). The unit prepares publications, the Quality Management Plan, Quality Assurance Project Plans, Standard Operating Procedure documents, and coordinates external and internal training. The development and maintenance of QAPPs, SOPs, and QMPs is essential in providing consistent operating procedures within the various program areas. Operational reviews are conducted with the DWS Public Health Section Chief/Quality Assurance Manager, and Supervisory staff on a routine basis.

Distinct responsibilities of the Grants and Administrative Support unit include:

- *Grant/Contract Development and Implementation* – Oversee the development, tracking and submission of grant applications and reports to the EPA; and any contracts that the DWS initiates. Funding and spending is monitored by the program to maintain accurate expenditure accounts.

- *Regulation Development* - prepares and tracks drinking water regulatory changes for submission to the State Legislature by the department. The unit also conducts legislative research concerning statutory or functional intent of specific sections of the Connecticut statutes or regulations when needed by the section. The regulatory development, adoption process and implementation procedures are documented in the New England States' Drinking Water Programs Quality Assurance Project Plan (DWP QAPP), prepared jointly by representatives of the Drinking Water Programs of the Six New England States, with assistance from EPA New England.

- *Public Outreach* - provides and develops all communication planning (i.e. press releases, public meetings/notices) publications (fact sheets, brochures, pamphlets, etc.), internal training, electronic public information services (email, webpage, Connecticut Health Alert Network, Wide Area Notification System), technical assistance initiatives, planning and assessment. The program coordinates with PWSs, businesses, trade associations, etc. to provide speakers and/or to initiate conferences and workshops.

7. Source Water Protection Unit

The Source Water Protection (SWP) unit operates under a five year strategic plan that details action items that include regulatory and non-regulatory activities that protect the state's public drinking water supplies. This plan emphasizes source water protection implementation through links to public health initiatives and existing public health law. The following areas are emphasized in the plan and have been identified by the DPH as critical to drinking water source protection, and achieving minimized risk to public health:

Permitting, Education and Training Program

- Enhance, oversee and enforce existing public health source protection permitting laws and regulations for the regulation of water company land, recreational use permits, storm water discharge and the sale of water companies and water company lands.
- Review and approve siting of new/replacement sources of public drinking water
- Work with sister state and local agencies concerning contamination that represents a risk to sources of public drinking water
- Review and comment on annual watershed survey reports
- Review and comment on projects from other state agencies
- Educate certified operators concerning source water protection
- Educate local land use officials and local health directors
- Integrate drinking water source protection with water supply management planning
- Initiate the development of drinking water quality management plans
- Develop a consistent local land use review process to assist towns in protecting drinking water sources
- Involve stakeholders on a continuous basis
- Work with state agencies on initiatives that include open space acquisition, responsible growth, and state policies that may affect public drinking water sources
- Review and track emerging issues that may affect public drinking water sources
- Review, recommend action, and track Source Water Abandonment Permit applications. Section 25-33k of the CT General Statutes delineates criteria for the approval and issuance of Source Abandonment Permits.
- Review, comment, and collaborate with the Connecticut Department of Environmental Protection (DEP) on PWS Diversion Permit applications.
- Working with the Department of Public Utility Control, review and oversee the creation of new public water supply systems under the Certificate of Public Convenience and Necessity Statutes.

- Conduct environmental reviews pertaining to water company lands

8. Statewide Planning Unit

This section is responsible to oversee statewide public water supply planning. State statutes govern individual water supply planning and Regional Water Supply Planning Water Utility Coordinating Committee (WUCC) processes. These processes are designed to ensure that the 84 largest community public water systems have plans that provide for adequate public drinking water quality and quantity for a fifty year period. Criteria utilized in the review and approval process of individual water supply plans are mandated in CT General Statutes Section 25-32d. In addition, the unit oversees the following state permitting processes:

- Review, recommend action, and track Sale of Excess Water Permit applications. Criteria for the approval and issuance of sale of excess water permits are delineated by Section 22a-358 of the CT General Statutes.

Criteria for the approval and issuance of Diversion Permits are delineated by Section 22a-373 of the CT General Statutes.

- Oversight of water conservation planning activities
- Review and approval of emergency contingency plans and water conservation plans
- Tracking and reporting of the state's reservoir capacity on a monthly basis
- Review and approval of safe daily yields of the state's largest public drinking water sources

9. The Laboratory Certification Program

The DPH Environmental Health Section approves and/or certifies all environmental laboratories (private, municipal, and state operated) that test drinking water, sewage, solid waste, soil, air, food, and environmental samples for bacteria, inorganics, organics, and radiochemicals. The program also enforces EPA regulations for the laboratory testing of public drinking water, waste effluent and solid waste. The goal is to ensure that approved laboratories meet minimum testing standards as established by the EPA, the FDA, and the State of CT. The program also provides technical consultation to the regulated laboratory community as well as to the users of the generated data.

The DWS is reliant on the DPH laboratory and certified contract laboratories for analysis of water quality samples. Laboratories are required to meet minimum testing standards and procedures outlined in relevant regulations and policies. The state principal laboratories calibrate and maintain their instruments as required by instructions given in the various EPA-approved analytical methods. EPA New England verifies during its periodic on-site evaluations of these laboratories that all method requirements are appropriately performed. The State of Connecticut Department of Public Health Laboratory follows the most recent version of their Quality Assurance Plan (Revision 6, January 19, 2005). All water quality data submitted by PWSs to the DWS for compliance purposes must have been reported from samples analyzed by a certified laboratory. All samples taken from DWS field staff while conducting inspections and investigations are sent to the DPH laboratory for analysis.

10. Supplemental Program Elements

The DWS staff, primarily from the SWP Unit, also performs a number of activities that augment the major programmatic elements of a multiple barrier approach to protecting and preserving public drinking water supplies. These activities include issuance of Well Permit Exceptions, submittal of comments to municipalities on proposed development projects within public water supply watersheds, and other activities as needed. Additionally, the DWS prepares and delivers testimony for acquisition and receivership of public water companies under Public Utilities Regulatory Authority (PURA) proceedings, oversees Water Quality for Private Residential Wells Regulations, and participates in environmental reviews under the CT Environmental Policy Act.

2. Based on the existing system strategy, how has the State continued to identify systems in need of capacity development assistance?

Answer: The DPH identifies and prioritizes existing systems for capacity development assistance using compliance data including data contained in the SDWIS State database and data obtained from sanitary surveys. The selection of PWSs requiring additional assistance is primarily accomplished by two mechanisms.

The first mechanism is the sanitary survey process and the resulting compliance determinations. During a sanitary survey the physical infrastructure of the water system is assessed to determine if there are significant violations or deficiencies that could present long and/or short term sustainability problems. For most community water systems much of their water system assets are buried (i.e. distribution and transmission water mains) and cannot be inspected during sanitary surveys. The DWS has incorporated many additional question sets into the sanitary survey process to determine if systems are adequately employing sustainability concepts. These question sets include discussions on financial and managerial capacity topics including asset inventories, asset management, capital improvement plans, budgeting and rate setting. These areas of financial and managerial analysis are particularly important when visible infrastructure deficiencies are identified that may have resulted from neglect, insufficient revenue/reserve funds or an inadequate sustainability program. Sanitary surveys are conducted at least every 3 years for CWSs and every 5 years for NTNC and TNC systems.

The second mechanism used to identify systems in need of capacity development assistance is the ability of a system to respond to the compliance requirements for prescribed regulation implementation and to report this compliance data to the DWS. Compliance data is managed in SDWIS and compliance determinations are run on a continual basis. Examples of data that may identify a system in need of assistance would include MCL violations, M&R violations and Treatment Technique violations among others. Greater than one monitoring and reporting violation in a 12-month period is used as a trigger of possible deficiencies in managerial and possibly financial capacity and formal enforcement actions are initiated. This approach attempts to avoid systems from being placed on the ETT list. Systems that are, or become placed on the ETT list are given priority technical assistance consistent with Connecticut's existing Strategy.

Operator certification problems can also 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 lack the required operator. Common reasons for systems not having a certified operator include: failure of operators to renew their certification, Conditional (grandfathered) Operators that leave a system, change of system ownership, and termination of contracts with operators. Operator certification problems are addressed through technical

assistance by the Enforcement and Certification (E&C) Unit, followed by progressive enforcement (violation letter, order, civil penalty). Some water systems have numerous monitoring and reporting violations. The E&C Unit follows up with technical assistance and uses this as a trigger for possible disciplinary action against operators. The E&C Unit utilizes a database query to automatically generate lists of systems with numerous violations or multiple systems operated by the same operator with numerous violations. These lists are generated on a continual basis. This data is used to set up technical assistance meetings with operators, and to begin the disciplinary action process, if necessary. Water systems may have questions or appeals on enforcement actions. This could be an indication of operators not understanding the regulations. In some instances, certified operator misconduct is an issue. The department can take disciplinary actions, such as suspension or revocation of certification, for actions such as fraud, deception, negligence or incompetence. The E&C Unit has a standard operating procedure for disciplinary actions against certified operators.

Water supply plans and the Water Utility Coordinating Committee (WUCC) planning process also identify potential solutions to local and regional public drinking water supply issues and assist in assuring future availability, viability, and purity of the state's public drinking water supplies. Sustainability issues, including the necessary infrastructure investments required for the state's existing large public drinking water suppliers, are also identified, scheduled and tracked within water supply plans. Long term water supply planning both at the local and regional level helps keep our state healthy and competitive in terms of attracting the new industry and businesses required to create additional employment opportunities.

A CWS's ability to build consumer confidence in the drinking water they provide is also considered an important capacity development element. A CWS's compliance with the consumer confidence reporting is also used as a trigger for technical assistance.

3. *During the reporting period, if statewide PWS capacity concerns or capacity development needs (TMF) have been identified, what was the State's approach in offering and/or providing assistance?*

Answer: The sanitary survey process has been successful in recognizing common trends in sustainability deficiencies with all PWSs. Smaller systems fail to recognize the need to plan for the future and make necessary adjustments to their water rates (or business profits in the case of most non-community systems) to have sufficient reserve funds for capital improvements. They also are challenged in understanding and complying with the ever increasing number of new regulations being developed and implemented. Many small CWS charge flat rates for water and do not periodically review these rates as compliance and operational costs increase and their water system infrastructure depreciates.

DWS Units within the Compliance Section as well as the Water Supply Planning Unit are very involved in promoting mutual aid among public water systems, and in preaching community outreach and regional planning in areas where systems' consolidation is feasible or where drinking water infrastructure needs improvement. This is especially true with small water systems. Seven (7) PWS consolidations occurred during the period of 7/1/11 through 6/30/12 including 2 NTNC, and 5 TNC systems. Small systems are always encouraged to pursue interconnections with larger CWS when feasible interconnections exist as a method of resolving their violations and capacity deficiencies.

When consolidation is not a feasible option, troubled small CWS are encouraged to achieve sustainability by:

- Inventorying their assets
- Preparing asset management plans
- Preparing capital improvement plans
- Preparing a budget with capital reserve contingencies
- Reviewing and adjusting their water rates annually
- Ensuring customer payment of water bills
- Having a sound organizational structure
- Having operational and emergency procedures
- Having well trained operators

The Capacity Development Unit makes extensive use of EPA sustainability handbooks and DWSRF program outreach to provide the pathway and financial means of achieving compliance and sustainability. Some small systems are not capable or willing to implement these sustainability measures and they continue to fall further out of compliance. The failure of an existing CWS to comply with either the PURA or the DPH regulations could require joint hearings to determine the system's economic viability. If it is determined that the CWS is not viable, the PURA, with DPH's consultation, may order the acquisition of the CWS by the most suitable entity. This is a two-step process; the first step is a thorough evaluation of the CWS's ability to provide TMF capacity. The second is the determination of possible restructuring or acquisition by a more reliable and sound CWS.

The "take-over" process has typically resulted in more viable systems or the elimination of an existing CWS. Non-viable CWS's tend to chronically fail to achieve compliance in areas such as water quality monitoring, 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.

Similarly, compliance tracking by the Enforcement and Certification Unit has resulted in recognizing common trends with different types and sizes of systems. This compliance data has revealed the specialized needs of small water systems and has resulted in adjustments to the training curriculum of small system operators that is provided by the Capacity Development Unit. It has been recognized that small systems rely heavily on their certified operators to maintain compliance with drinking water regulations and perform or arrange for all preventive and corrective maintenance to the system. In contrast to the broader overview of the small system operator training offered by the DWS, the training curriculum for larger systems with multiple treatment and distribution systems operators may be more specialized to a specific operator's duties.

The DWS also makes extensive use of our website to provide a broad range of information to public water systems to assist them with achieving compliance and providing them with access to important information.

4. *If the State performed a review of implementation of the existing systems strategy during the previous year, discuss the review and how findings have been or may be addressed.*

Answer: The DWS has continued to review the existing systems Strategy during 2011-2012 to ensure compliance with the current implementation processes. Although updates and changes are

necessary, overall, our implementation is still consistent with our existing EPA approved Capacity Development Strategy.

The DWS submitted draft Strategy modifications in December 2010 to EPA Region 1 for review and comment. The DWS is awaiting the results of EPA's review prior to finalizing these modifications.

5. *Did the State make any modifications to the existing system strategy? If so, describe.*

Answer: Yes, however these modifications are still under EPA Region 1 review and have not been finalized. Until finalization occurs, the DWS continues to implement a capacity development program that is consistent with our existing EPA approved Capacity Development Strategy. (see #4 above)

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION
2012 CAPACITY DEVELOPMENT REPORT
ATTACHMENT 1
NEW PUBLIC WATER SYSTEM LIST
JULY 1, 2009 - JUNE 30, 2012

PWS ID	PWS NAME	STATUS CODE	STATUS DATE	CPCN	Date Entered into SDWIS	ETT > 11	Type of Violations
CT0050254	VILLAGE OF BOULDER RIDGE- WELL #2	A	11-Jun-09		23-Feb-10		
CT0081124	VETERANS MEMORIAL PARK PAVILLION	A	01-Jun-11	Y	27-Jun-11		
CT0131003	CHILDRENS DENTAL ASSOCIATION	A	31-Mar-10		31-Mar-10		
CT0189841	AQUARIAN WATER CO OF CT-TOWNE BROOKE	A	25-Jan-10	Y	25-Jan-10		
CT0189954	83 FEDERAL ROAD	A	29-Apr-10		29-Apr-10		
CT0189964	SAINT JOSEPH CHURCH	A	01-Oct-10		17-Sep-10		
CT0189971	39 HOP BROOK RD - APT COMPLEX	A	29-Nov-11		29-Nov-11		
CT0189973	PHOTRONICS, INC. BUILDING 1	A	30-Jan-12		02-Feb-12		
CT0189974	331 FEDERAL ROAD	A	11-Apr-12		11-Apr-12		
CT0189983	PHOTRONICS, INC. BUILDING 2	A	30-Jan-12		08-Feb-12		
CT0248044	CHAPLIN SENIOR CENTER	A	26-Mar-10		26-Mar-10		
CT0261094	CHRISHOLM MARINA-OFFICE	A	11-Jan-10		11-Jan-10		
CT0290143	COLEBROOK CHILDCARE LLC	A	13-May-10		18-May-10		
CT0309133	DISCOVERY ZONE LEARNING CENTER	A	19-Nov-09	Y	19-Nov-09		
CT0309134	BECKISH SENIOR CENTER	A	25-Mar-10		25-Mar-10		
CT0320294	1428 SOUTH ST	A	03-May-12		03-May-12		
CT0321234	STORRS COMMUNITY CHURCH	A	23-Jun-10	Y	23-Jun-10		
CT0321244	WALGREEN'S PHARMACY-COVENTRY	A	06-Oct-09	Y	08-Dec-09		
CT0399044	EASTFORD BAPTIST CHURCH- ACTIVITY CENTER	A	25-Nov-09		22-Dec-09		
CT0419211	GOODSPEED ACTOR HOUSING - THE VILLAGE	A	07-Dec-11		07-Dec-11		
CT0429154	227 WEST HIGH STREET - E HAMPTON	A	02-Jun-11		02-Jun-11		
CT0430064	CUMBERLAND FARMS #4647	A	23-Oct-09		23-Oct-09		
CT0529051	CTWC - CHIMNEY HILL	A	19-Jul-11		19-Jul-11		
CT0530253	HILLTOP REALTY, LLC	A	04-Sep-09		21-Sep-09		
CT0530254	96 ROUTE 32	A	06-Feb-12		06-Feb-12		
CT0530264	107 ROUTE 32	A	06-Feb-12		06-Feb-12		
CT0530274	DW TRANSPORT & LEASING, INC.	A	10-Feb-12		10-Feb-12		
CT0549044	DONDERO ORCHARDS LLC	A	21-May-10		25-May-10		
CT0581024	JEMM PROPERTY MANAGEMENT, LLC	A	24-Jun-10		24-Jun-10		
CT0598063	MYSTIC BUSINESS PARK, LLC	A	29-Apr-10		17-May-10		
CT0614054	HADDAM COMMONS	A	03-May-10	Y	03-May-10		
CT0614064	HADDAM VOLUNTEER FIRE STATION #1	A	06-Feb-12		06-Feb-12		
CT0621014	CHURCH OF THE ASCENSION	A	16-Mar-11		14-Mar-11		
CT0650114	BETHANY LUTHERAN BRETHERN CHURCH WELL# 2	A	19-May-09		16-Sep-09		
CT0667014	207 BIRGE PARK ROAD - HARWINTON	A	08-Apr-10	Y	15-Apr-10		
CT0672044	TOWN OF HEBRON EAST STREET PARK	A	26-Aug-09	Y	26-Aug-09		
CT0677074	208 BIRGE PARK ROAD - HARWINTON	A	13-Jan-09	Y	06-Jan-09		
CT0691244	CUMBERLAND FARMS STORE #4632	A	13-Jan-12		18-Jan-12		
CT0709184	KILLINGWORTH CONG. CHURCH -OLD TOWN HALL	A	20-Sep-10		23-Sep-10		
CT0709194	DEER LAKE SCOUT RES.-DINING HALL WELL 2	A	29-Mar-12		29-Mar-12		
CT0709204	177 ROUTE 81	A	29-Mar-12		29-Mar-12		

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PWS ID	PWS NAME	STATUS CODE	STATUS DATE	CPCN	Date Entered into SDWIS	ETT > 11	Type of Violations
CT0719134	903 EXETER RD - LEBANON	A	26-Mar-10		26-Mar-10		
CT0719144	GRAND LAKE SPA RESORT CO.	A	25-Mar-10		25-Mar-10		
CT0727083	IVY COTTAGE CHILDREN'S CENTER	A	07-Aug-09		07-Aug-09		
CT0727091	LEDYARD WPCA - LEDYARD CENTER	A	03-May-10		03-May-10		
CT0731031	ROUND HILL LLC - WELL# 2	A	20-Jul-09		20-Jul-09		
CT0745134	NORTHLAND PROPERTIES, LLC	A	18-Jun-10		18-Jun-10		
CT0779074	MANCHESTER CONG. OF JEHOVAHS WITNESSES	A	18-Nov-09	Y	18-Nov-09		
CT0779083	ELISABETH M. BENNET ACADEMY	A	20-Jul-11		20-Jul-11		
CT0779093	CTWC - BUCKLAND ROAD SERVICE AREA	A	19-Jul-11		19-Jul-11		
CT0779094	622 MIDDLE TURNPIKE EAST	A	24-Feb-12		24-Feb-12		
CT0829074	THE GOLF CENTER AT LYMAN ORCHARDS	A	01-May-12	Y	30-May-12		
CT0859071	27-39 MAPLE DRIVE - MONROE	A	27-Jul-10		27-Jul-10	Y	Monitoring/Reporting*
CT0859074	588 MONROE TNPK - DDH ASSOCIATES, LLC	A	02-Aug-10		02-Aug-10		
CT0859084	181 MAIN STREET	A	13-Jan-11		13-Jan-11		
CT0869054	I-395 SOUTHBOUND SERVICE PLAZA	A	12-Aug-10	Y	12-Aug-10		
CT0915234	NEW FAIRFIELD SCHOOLS CONCESSION STAND	A	01-Jun-10	Y	01-Jun-10		
CT0915244	249 ROUTE 39	A	07-Feb-11		07-Feb-11		
CT0925014	BRODIE PARK NORTH	A	06-Jun-11		06-Jun-11		
CT0969384	ARION SINGING SOCIETY HALL	A	27-Feb-12		27-Feb-12		
CT0979414	HAWLEYVILLE DEVELOPMENT, LLC.	A	31-Mar-10	Y	31-Mar-10		
CT1021073	411C NORWICH WESTERLY RD	A	26-Sep-11		16-Sep-11		
CT1021074	STONINGTON CT CONGN JEHOVAH'S WITNESSES	A	01-Dec-10		05-Apr-11		
CT1021084	NORTH STONINGTON BIBLE CH - WORSHIP HALL	A	01-Oct-11		23-Aug-11		
CT1049024	MOHEGAN PARK - GROUP PAVILION	A	30-Mar-10		30-Mar-10		
CT1049034	MOHEGAN PARK - DOG POUND	A	30-Mar-10		30-Mar-10		
CT1059204	OLD LYME COUNTRY CLUB- TENNIS COURT	A	30-Nov-09		30-Nov-09		
CT1059214	OLD LYME COUNTRY CLUB- POOL CABANA	A	30-Nov-09		30-Nov-09		
CT1059224	GRAYBILL PROPERTIES, LLC	A	30-Apr-10	Y	14-May-10		
CT1085044	JACKSON COVE	A	25-Mar-11	Y	25-Mar-11		
CT1099181	MOOSUP POND APARTMENTS, LLC	A	23-Nov-11		23-Nov-11		
CT1099184	SEABIRD ENTERPRISES, INC.	A	09-Jul-09		09-Jul-09		
CT1110314	CAMP MATTATUCK- LEEVER LODGE	A	09-Feb-10		09-Feb-10		
CT1130194	ST. CLEMENTS ESTATE- BANQUET HALL SYSTEM	A	20-May-09		24-Sep-09		
CT1221053	SALISBURY SCHOOL - BOAT HOUSE	A	02-Jul-09	Y	08-Jul-09		
CT1231024	CHRISTIAN FELLOWSHIP CHURCH OF SCOTLAND	A	01-Mar-11		01-Mar-11		
CT1269084	HARVEST KITCHEN PANTRY-JONES FAMILY FARM	A	16-Mar-11		14-Mar-11		
CT1270214	SHERMAN GREEN MARKETPLACE- WELL #2	A	09-Oct-09		30-Nov-09		
CT1270224	SHERMAN PARK & BEACH PAVILION	A	01-Mar-11	Y	01-Mar-11		
CT1284104	COMMUNITY FARM OF SIMSBURY	A	17-Jun-11		17-Jun-11		
CT1299044	SOMERS GOLF CENTER	A	18-Dec-09		31-Dec-09		
CT1311064	1226-1234 QUEEN ST - STRIP MALL	A	25-Mar-10		25-Mar-10		

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CT1311074	1217 QUEEN ST	A	13-Mar-12		13-Mar-12		
CT1378064	862 STONINGTON ROAD - STONINGTON	A	06-Jul-10		06-Jul-10		
CT1378074	SALTWATER FARM VINEYARD	A	24-May-11		24-May-11		
CT1419074	292 RIVERSIDE DRIVE - THOMPSON	A	14-Feb-11		14-Feb-11		
CT1419081	MARIANAPOLIS - ST. ALBERTS HOUSING	A	22-Mar-12		22-Mar-12		
CT1440021	TASHUA VILLAGE ASSOCIATION, INC.	A	01-Apr-11		22-Mar-11	Y	Monitoring/Reporting*
CT1495024	THE ROOSTER TAIL INN AND TAVERN	A	01-Jul-09		25-Aug-09		
CT1501144	9 MAIN STREET	A	27-Feb-12		27-Feb-12		
CT1501154	287 NEW MILFORD TNPK	A	27-Feb-12		27-Feb-12		
CT1521004	CONNECTICUT HUMANE SOCIETY - WATERFORD	A	29-Jun-11		29-Jun-11		
CT1579174	ASPETUCK VALLEY CTRY CLUB - POOL/SNACKBR	A	02-Oct-09		02-Oct-09		
CT1579184	GIRL SCOUTS OF CT - CAMP ASPETUCK LODGE	A	13-Apr-10		01-Jun-10	Y	Total Coliform (Acute) MCL
CT1609144	LOVE VETERINARY CENTER	A	03-May-10	Y	03-May-10		
CT1615164	WILTON TRAIN STATION	A	13-Mar-12		13-Mar-12		
CT1686094	WOODBURY SKI AREA ROD TAYLOR TUBING AREA	A	12-Jan-10	Y	26-Feb-10		
CT1686101	HOLLY HOUSE APARTMENTS	A	01-Apr-11		01-Apr-11		
CT1699081	FAWN RIDGE ASSOCIATION INC.	A	01-Feb-11		05-Jan-11	Y	Monitoring/Reporting*

* Existing Systems that were recently discovered