State of New Jersey
Department of Environmental Protection
Division of Water Supply
Bureau of Safe Drinking Water-Technical Assistance

Capacity Development Program

REPORT ON

ONGOING IMPLEMENTATION

OF THE

CAPACITY DEVELOPMENT PROGRAM

Period of July 1, 2008 to June 30, 2009

August 2009

Governor
Jon S. Corzine

Acting Commissioner
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IMPLEMENTATION REPORT

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Introduction

The 1996 Amendments to the Federal Safe Drinking Water Act (SDWA) require states to prepare an annual report documenting the ongoing implementation of the Capacity Development Program for addressing capacity determinations for new systems and the application of the approved strategy for existing public water systems. This is the New Jersey Department of Environmental Protection's (Department) ninth annual report on the ongoing implementation of the Capacity Development Program.

Overview

The 1996 Amendments to the SDWA create a focus on ensuring and enhancing the technical, managerial and financial (TMF) capacity of public water systems to comply with the National Primary Drinking Water Regulations.

In accordance with Section 1420 (a) of the SDWA, each state shall have the legal authority to assure that all new community and non-transient non-community water systems demonstrate adequate technical, managerial and financial capacity. In New Jersey, Assembly Bill No. 2615 was signed into law on August 2, 1999 (P.L.1999 Chapter 176). This legislation amended the New Jersey Safe Drinking Water Act (N.J.S.A. 58:12A) to give New Jersey explicit legal authority to require new public water systems to demonstrate capacity. The New Jersey Department of Environmental Protection proposed new regulations at N.J.A.C. 7:10-13 which establish the requirements to assure that all new public community and non-transient non-community water systems have adequate capacity. The Department adopted the new regulations on August 21, 2000 [32 N.J.R. 3106 (a)] and readopted the regulations without changes on November 4, 2004.

In accordance with Section 1420 (c) of the Federal SDWA each state is required to develop and implement a strategy to assist existing systems in acquiring and maintaining capacity. The United States Environmental Protection Agency (USEPA) approved the Department's Capacity Development Strategy on September 28, 2000.

This report will review the activities conducted from July 1, 2008 through June 30, 2009 regarding implementation of the Capacity Development Program.

New System Approval – Community Water Systems

Community Water Systems

The Department added eight (8) new community water systems to its inventory of public water systems during the period of July 1, 2008 through June 30, 2009. Six (6) of the eight (8) systems were reclassified from non-transient non-community water systems to community water systems. One (1) system was activated. These seven (7) systems required no TMF analysis because the systems do not meet the definition of a " new system". The systems were not newly constructed nor expanded their infrastructure to become a community water system. One system was activated and has a TMF application pending. Please see Table 1.

Table 1. New Community Water Systems Activated in 2009

PWSID No.	SYSTEM NAME	START DATE	COMMENTS
1714003	Bancroft Center	6/26/2008	Existing Infrastructure Activated TMF application received on 2/2009. TMF pending
1213313	The Gardens at Monroe	7/16/2008	Existing infrastructure Reclassified NT to CWS No TMF required
1024002	Hunters Glen	11/19/2008	Existing Infrastructure Reclassified NT to CWS No TMF required
1414024	YB Properties	12/01/2008	Existing Infrastructure Activated No TMF required
1714300	Mater Dei Nursing Home	12/23/2008	Existing infrastructure Reclassified NT to CWS No TMF required
1710307	Haus Rosario Reg Healthcare	12/23/2008	Existing infrastructure Reclassified NT to CWS No TMF required
1025308	Pattenburg House	12/23/2008	Existing infrastructure Reclassified NT to CWS No TMF required
0605309	Salem County Special Srv. School	6/09/09	Existing infrastructure Reclassified NT to CWS No TMF required

Key: ***CWS*** *— community water system,* ***T*** *— transient non-community water system*
NT *— non-transient non-community water system,* ***TMF —*** *technical, managerial, & financial*

To date, no new community water system proposals have been denied approval based on TMF requirements.

New System Approval – Non-Transient Water Systems

Non-Transient Non-Community Water Systems

New Jersey added thirty seven (37) non-transient, non-community water systems to its inventory of public water systems during the period of July 1, 2008 through June 30, 2009. Two (2) of the thirty seven (37) systems required and received TMF approval under NJ Safe Drinking Water Act regulations at N.J.A.C. 7:10-13. Seven (7) of the thirty seven (37) require, but have pending, a TMF review. The remaining thirty (30) systems did not meet the definition of "new system". These systems were not newly constructed nor expanded their infrastructure to become a non-transient non-community water system and consequently did not require a TMF review. These systems were either unregulated existing public water systems, transient water systems that were reclassified, or a reactivation of an existing system. The following table lists the non-transient, non-community water systems added. Please see Table 2.

Table 2. New Non-Transient Non-Community Water Systems Activated in 2009

PWSID No.	SYSTEM NAME	START DATE	COMMENTS
0824317	US Drop Forge Co.	07/09/2008	Existing infrastructure Reactivated No TMF required
0818473	Gloucester County Comm Church	07/10/2008	Existing infrastructure Reclassified T to NT No TMF required
0609316	Bundles of Blessing Day Care	07/17/2008	Existing infrastructure Reactivated No TMF required
1202318	Perrine Pontiac	07/28/2008	Existing infrastructure Reclassified T to NT No TMF required
0326323	North Hanover Upper Elementary School	07/31/2008	Existing infrastructure Reactivated No TMF required
0607326	Fralinger Engineering PA	07/31/2008	Existing infrastructure Reactivated No TMF required
1406326	1 Mill Ridge Lane	08/08/2008	Existing infrastructure Reactivated TMF required

PWSID No.	SYSTEM NAME	START DATE	COMMENTS
1523326	Plumstead Retail Center c/o Jesse Bell	08/11/2008	Exisitng infrastructure Reactivated TMF required
1406327	6 Mill Ridge Lane	08/12/2008	Existing infrastructure Reactivated TMF required
1924362	Kiddie Academy	08/14/2008	TMF Pending
1511428	Cassville Nursery LLC	08/15/2008	Existing infrastructure Reactivated TMF required
0811417	Child Care Partners Preschool Daycare	08/19/2008	Existing infrastructure Reactivated No TMF required
1019313	Califon Business Park	08/27/2008	Existing infrastructure Reclassified T to NT No TMF required
0611300	Shiloh Elementary School	09/02/2008	Existing Infrastructure Reactivated No TMF required
1710343	Pittsgrove Twp. Middle School	10/01/2008	Existing infrastructure Reactivated No TMF required
0326324	Brg Gen WM C Doyle Cemetery	10/03/2008	Existing infrastructure Reactivated TMF required
1309425	Trump National Golf Club @ Colts Neck	10/08/2008	Existing infrastructure Reactivated TMF Pending
1351330	Schooltime Learning Center	10/27/2008	TMF approval on 8/28/2008
1021419	Farm 31	11/05/2008	Existing infrastructure Reclassified T to NT No TMF required

PWSID No.	SYSTEM NAME	START DATE	COMMENTS
1511422	West Commodore Industrial Park	11/12/2008	Existing infrastructure Reclassified T to NT No TMF required
0320363	Sirchie Acquisition Company	11/20/2008	Existing infrastructure Reactivated No TMF required
0334318	Burlington County Soil Conservation	12/18/2008	Existing infrastructure Reactivated TMF required
2116342	Edhard Corporation	1/20/2009	Existing infrastructure Reactivated No TMF required
0317304	Flying W Airport	1/20/2009	Existing system Reactivated No TMF required
1006373	Acorn Montessori Oak1	3/05/2009	Existing system reactivated No TMF required
1006375	Acorn Montessori Oak 2l	3/05/2009	Existing system Reactivated No TMF required
1427408	180 Goldmine Road Complex	3/18/2009	Existing system Reactivated No TMF required
1427409	186 Goldmine Road Complex	3/27/2009	Existing infrastructure Reclassified T to NT No TMF required
1021305	Hunterdon Medical Center	4/01/2009	Existing infrastructure Reactivated No TMF required
1106402	Mercer County Parks Commission	4/02/2003	Exisiting infrastructure Reactivated NO TMF required

PWSID No.	SYSTEM NAME	START DATE	COMMENTS
1021405	Reagent Chemical & Research	4/07/2009	Existing infrastructure Reclassified T to NT No TMF required
1351321	Phills II	4/30/2009	Existing infrastructure Reclassified T to NT No TMF required
1326319	Pied Piper Pre- School	5/08/2009	Existing infrastructure Reclassified T to NT No TMF required
1106400	84 Hopewell LLC	5/12/2009	Existing infrastructure Reclassified T to NT No TMF required
0605309	Salem Cty Special Services School	6/01/2009	Existing infrastructure Reactivation No TMF required
0436501	DU Bell Lumber Company	6/09/2009	Existing infrastructure Reactivation No TMF required
Proposed	Town Square Plaza	Proposed	TMF Pending
1351328	Kiddey Academy	3/17/2009	TMF approved on 3/17/2009

*Key: **CWS** — community water system, **NT** — non-transient non-community water system, **T** — transient non-community water system, **NP** — non public systems, **TMF** — technical, managerial, financial evaluation*

To date, no new non-transient non-community water system proposals have been denied approval based on TMF requirements.

Work Plan Activities

The Capacity Development Program SFY 2009 Work Plan was submitted to USEPA in March 2008. During the period of July 1, 2008 through June 30, 2009, the Capacity Development Program engaged in several activities related to implementation. The following is a review of New Jersey's work plan activity followed by a description of the accomplished tasks for the 2008 fiscal year:

1. **Finalize the SFY2008 Annual Report that documents the ongoing implementation of the capacity development program for addressing capacity determinations for new systems and the application of a focused effective strategy for existing public water systems. <u>This report is due by August 2008.</u>**

   The SFY2008 Annual Report was finalized and sent to USEPA on August 11, 2008.

2. **Finalize the triennial report to the Governor as required by Section 1420(c)(3) of the Federal Safe Drinking Water Act. This report provides the Governor and the public with an evaluation and update on the NJDEP's Capacity Development Program. <u>This report is due by August 2008.</u>**

   The triennial report to the Governor was finalized and sent to the Governor on September 26, 2008.

3. **Prepare the SFY2009 Annual Report that documents the ongoing implementation of the capacity development program for addressing capacity determinations for new systems and the application of an effective strategy for existing public water systems. <u>This report is due by August 2009.</u>**

   This SFY2009 Annual Report has been prepared to document the ongoing implementation of the capacity development program for addressing capacity determinations for new systems and the application of an effective strategy for existing public water systems.

4. **Continue the process of conducting on-site capacity evaluations for the 19 community and 20 non-community water systems identified on the 2007 Interim Strategy List.**

   The program performed a number of on-site capacity evaluations in SFY2009 and a summary on the status of the Capacity Development Program activities for high-priority systems contained in the Final 2007 Strategy List is provided in Appendix I. Please note the Final 2007 Strategy List identified Valley View Manor (PWSID# 1001301) and Liberty Royal Rehab Center (PWSID# 1336308) as non-community water systems. However, these systems were reclassified as community water systems and are addressed as such in this report and Appendix I. As a result, the Capacity Development Program is tasked with assisting 21 community water systems and 18 non-community water systems. To date, the Capacity Development Program has worked with 14 of the 21 community water systems listed, two (2) of which have been removed from the Strategy List and another

pending removal once the plans for its sale and consolidation with an adjacent, viable community water system are finalized. To date, the Capacity Development Program has worked with 10 of the 18 non-community water systems, 3 of which have been removed from the Strategy List.

5. **Provide direct technical assistance to those water systems that fail to demonstrate adequate technical, managerial, and financial capacity. This will be performed on an <u>ongoing</u> basis and will attempt to cooperatively incorporate the use of technical, managerial and financial assistance. Technical assistance will include direct consultation to assist targeted water systems to comply with existing regulations regarding construction and operation. Managerial and financial assistance will attempt to incorporate the concepts of Asset Management to establish water system priorities in refurbishing and maintaining needed infrastructure. Once these priorities are determined, the water system can then develop meaningful projections of expenses and evaluate how to garner the revenues needed to effect improvements. The program anticipates becoming involved in meaningful rate setting discussions, when needed, so that targeted water systems can themselves determine how best to accrue the funds required to maintain their water system. If available, we anticipate utilizing USEPA's recently developed Check Up Program for Small Systems (CUPSS) or similar software when appropriate.**

   The Capacity Development Program provided direct assistance to the community water systems and non-community water systems on the 2007 Final Strategy List. (See Appendix I). Staff has facilitated meetings among system representatives (e.g., owners, managers, licensed operators, and consulting engineers), regulatory agencies (e.g., enforcement inspectors, compliance managers, and permit reviewers), and/or representatives from other public water systems to identify/evaluate alternatives and approaches for developing system capacity.

   Staff has participated in the CUPSS trainer network since 2008 and attended the CUPSS training webcasts in June 2009. USEPA certification as a CUPSS trainer is pending. As a result the technical, managerial, and financial capacity development assistance offered to systems has included introduction and education to the concept of asset management and CUPSS software. Some systems have also been advised of the potential to use the financial planning tools from the Boise State Environmental Finance Center (EFC) such as Rate CheckUp, EFC Financial Dashboard, and Utility Budgeting Workbook.

6. **The program plans to engage one or more third-party contractors to supplement our own efforts in providing on-site capacity evaluations, on-site technical assistance, and rate setting advice during SFY2009. The program will execute, manage, and coordinate service contract(s) to accomplish this goal. Tentative targets for the use of service contracts include a) Develop a contract, as identified in the initial Capacity Development strategy, to conduct an review of New Jersey's Capacity Development program b) third party contract to conduct site visits and conduct technical, managerial and financial**

capacity evaluations for targeted water systems, c) third party contract to implement asset management program for targeted water systems, d) third party contract to provide water utility rate setting assistance when necessary.

A scope of work has been prepared and a request for proposals (RFP) is being drafted by Treasury to solicit bids for the conduct of site visits, TMF capacity evaluations, and asset management plan development/implementation. It is anticipated the RFP will be announced in 1QSFY2010 with bids being received, evaluated, and awarded by the end of 2QSFY2010.

The Capacity Development Program is considering future oversight of another contract for services similar to the Engineering Initiative Assistance contract currently utilized by the Drinking Water State Revolving Fund (SRF) program. This contract for services would continue to provide funding for the design and permitting costs for systems which demonstrate the need for this type of financial assistance. The objective is to cover these "soft" costs and preserve the systems limited funding source alternatives for construction, operation, and maintenance of infrastructure needed for compliance.

7. **Prepare approximately 1,500 monitoring schedules for Calendar Year 2009 for all community water systems, and non-transient, non-community water systems and place on the Department website between January and March 2009. This web based approach provides systems and laboratories with on-line access to the monitoring schedules**

   The Department first posted the monitoring schedules on the Division of Water Supply's web site in 2007. These schedules were most recently updated in June 2009 and we notified systems of the availability of the monitoring schedules on our web site; www.nj.gov/dep/watersupply.

8. **Process technical, managerial, financial evaluations consistent with applicable State regulations (N.J.A.C. 7:10-13) for new community water systems, and non-transient, non-community water systems as identified by the Department and/or County Environmental Health Act (CEHA) agencies. <u>This will be performed on an ongoing basis</u>.**

   The Department added eight (8) new community water systems to its inventory of public water systems during the period of July 1, 2008 through June 30, 2009. Six (6) of the eight (8) systems were reclassified from NTNC water systems to CWS. One system (1) was activated. The other system was activated and has a TMF application pending. New Jersey added thirty-seven (37) non-transient, non-community water systems to its inventory of public water systems during the period of July 1, 2008 through June 30, 2009. Two (2) of the thirty-seven (37) systems required TMF approval under NJ Safe Drinking Water Act regulations at N.J.A.C. 7:10-13. The remaining thirty (30) systems did not meet the definition of "new system". Please refer to Tables 1 and 2.

9. Continue efforts to evaluate and revise the Capacity Development Strategy, including the strategy list development process to assure that targeted Capacity Development assistance is measurable and effective. Input will also be sought from other States with successful Capacity Development Programs/Strategies and USEPA.

Proposed revisions to the Capacity Development Strategy are provided in Appendix II. The process for identifying and ranking the more than 4,000 public water systems in New Jersey and the process for interacting with the systems and service provider are discussed in this document.

Regarding the Strategy List, the next version will be submitted with the SFY2010 Annual Report which will be sent to USEPA by August 15, 2010. Efforts are underway to automate the process for generating the Capacity Development Strategy List to the extent practical. The plan is to retain the criteria and scoring system used to generate previous lists for consistency in how to identify and prioritize systems for placement on the Strategy List. Efforts have focused on determining whether the New Jersey Environmental Management System (NJEMS) or the Safe Drinking Water Information System (SDWIS) is the best database to use to rank the more than 4,000 public water systems in New Jersey. To date, work has involved consultation with staff and management from the Data System Development and Data System Implementation sections within the Safe Drinking Water Program and the Office of Information and Technology. Moving forward, we anticipate developing queries to use NJEMS to generate preliminary rankings then evaluating data contained in SDWIS or other reference sources such as the Significant Non-Complier (SNC) list to finalize the rankings.

Procedural information on the interaction of Capacity Development Program Staff with systems and the service provider are also discussed in Appendix II. The procedures include applying the "Capacity Development Benchmark Document" as a means of measuring and illustrating the status of systems based on the findings of the capacity evaluations and to gauge their progress in developing capacity while implementing their improvement plans.

10. Obtain stakeholder involvement in the revised capacity development strategy and amend, as needed, based on feedback. <u>It is planned to complete a revised strategy by December 2008.</u>

To date, the Department has not initiated stakeholder involvement in the revision of a Capacity Development Strategy. The Department is seeking feedback on the contents of Appendices II and III from the USEPA in response to this report and in addition, the Department intends to use forums such as future training sessions to introduce these concepts and procedures to system representatives, licensed operators, and the administrative authorities (county and/or local health departments). Separate sessions will also be scheduled with the Department's Enforcement Inspectors, Compliance Managers, and Permit Reviewers.

Reporting Criteria

In this Section of the Report, the Department has considered and responded to the Memorandum from Cynthia C. Dougherty, Director, Office of Ground Water and Drinking Water, USEPA, Washington, D.C. dated June 1, 2005 and the questions highlighted in the prepared "Reporting Criteria for Annual State Capacity Development Program Implementation Reports" as follows:

- **Has the State's legal authority (statutes/regulations) to implement the New Systems Program changed within the previous reporting year?**

  No changes have occurred in the past year. The Department's regulations (N.J.A.C. 7:10-13) pertaining to the requirements of technical, managerial, and financial (TMF) capacity for new community and non-transient non-community water systems became effective on August 21, 2000, and were readopted without changes on November 4, 2004. These rules are set to expire in November 2009. The Department is in the process of readopting the rules once again and will be seeking comments during the comment period prior to readoption of N.J.A.C. 7:10-12 and 13.

- **Have there been any modifications to the State's control points? If so, describe the modification and any impacts these modifications have had on implementation of the New System's program.**

  No changes have occurred in the past year. As reported in the August 2006 Capacity Development Report, the Department has made a modification to one the State's control points. In the past, the Program would not issue a State public water system identification number (PWSID#) to any new system until the requirements of N.J.A.C. 7:10-13 were satisfactorily addressed. However, in some recent instances, the Department has had to issue PWSID # to new systems (only non-transient water systems) which are in operation but have yet to satisfy the TMF requirements. This change has allowed the Department to provide monitoring guidance to those water systems which have inadvertently commenced operation without TMF approval and in turn to receive and process monitoring data for compliance evaluation purposes during the TMF review. Typically, the Department assigns PWSID # and the system is permitted to commence operation only after satisfaction of the TMF requirements. The limited application of this change has not adversely affected the Program.

- **Indicate whether any new system approved within the past three years under the Capacity Development Program has been on any of the annual Significant Non-Compliers (SNC) lists.**

  The Department has recently reviewed the status of all new systems (community and non-transient water systems) which received TMF approval in the past three years. Based upon this review, no new systems, from the 2005, 2006 ,2007, and 2008 Implementation Reports are currently on the SNC list.

- **Regarding the State's approved existing systems strategy, which programs, tools, and/or activities were used, and how did each assist existing public water systems in acquiring and maintaining TMF capacity?**

  The Department has observed improvements in public water system compliance and attributes this observation to improved data management capabilities and the successful implementation of the efforts and mechanisms under the Capacity Development Program, the Enforcement Program, Small Water System Technical Assistance Program, and Operator Certification Program. The Capacity Development Program is making progress in addressing non-compliance which continues to promote TMF capacity.

  The significant elements that have brought about a higher level of compliance are detailed in the Governor's Report for calendar year 2008 and include:

  - Zero Tolerance Policy
  - Operator Certification Program (extended to NTNC water systems)
  - Monitoring Schedules
  - Technical Assistance By the Department of Environmental Protection
  - Violation evaluation
    - Improved data management
    - Maintenance of an accurate inventory of systems and the status/appropriateness of violations.
  - Implementing the activities of the Capacity Development Strategy

- **How has the State continued to identify systems in need of capacity development assistance?**

  The Department identifies systems in need of capacity development by preparing "Strategy Lists" which indicate those public water systems most in need of capacity development and which enables the Department to prioritize the Program's resources for performing capacity evaluations and providing assistance. The first strategy list was compiled in December 2001 from a review of the compliance status during the preceding 18-month timeframe from July 2000 – December 2001. The second strategy list was compiled in February 2004 from a review of the compliance status during the 18-month timeframe of January 2002 – July 2003.

  An Interim 2007 Strategy List was developed as reported in August 2007. This list has been finalized and is now the Final 2007 list. The list includes high priority systems from the 2001 and 2004 lists that remain unresolved and out of compliance. Additionally several systems, such as Sea Village Marina, were added based on staff's knowledge of the system.

As discussed in the Work Plan Activities section, above and Appendix II of this report, the Department is modifying the process for generating the 2010 Strategy List. The goals is to automate the process for evaluating over 4,000 public water systems to the extent practical and provide mechanisms for systems to volunteer for assistance and for various regulatory agencies to use first-hand knowledge to specifically identify systems which could benefit from assistance.

- **What was the State's approach in offering and/or providing assistance if statewide public water systems capacity concerns or capacity needs have been identified?**

The Capacity Development Program provides direct assistance to the community water systems and non-community water systems on the 2007 Final Strategy List. (See Appendix I). Staff has facilitated meetings among system representatives (e.g., owners, managers, licensed operators, and consulting engineers), regulatory agencies (e.g., enforcement inspectors, compliance managers, and permit reviewers), and/or representatives from other public water systems to identify/evaluate alternatives and approaches for developing system capacity.

In order to improve water system operation, the Department has identified drinking-water related training needs for small water system owners and operators. By contract with the New Jersey Water Association, 13 training sessions were held in the past year to provide assistance to small water systems (those serving less than 10,000). One hundred sixty (160) small systems were represented at these sessions. In addition, a contract with Rutgers University provided for a 50% tuition subsidy for drinking water-related training courses from July 1, 2008 to June 30, 2009. In that timeframe, 32 training courses were held. Four hundred fifty-nine (459) operators attended at the reduced rate. The Department initiated this contract with Rutgers University in FY 2008. We plan to provide additional funding for a new contract in FY 2011.

For 2009, monitoring schedules for all 4,000 public water systems were posted on the Division of Water Supply's web site. www.nj.gov/dep/watersupply. These schedules are continually updated throughput the year as necessary based on population changes, treatment installation and error corrections. These schedules benefit the Capacity Development program in that it notifies the water systems what to monitor for and thus assists the systems in compliance. This benefits the community water systems as well as the non-transient non-community water systems.

The program has developed an intensive audit review of lead and copper compliance, especially monitoring and public education requirements, partially in response to USEPA audit activities. For the period of July 1, 2008 to June 30, 2009, no audit review processes were performed.

In addition, the Department is investigating rate setting and asset management programs for community water systems.

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

  The Department conducted a review of the existing system strategy in SFY2009 as discussed in the Work Plan Activities section of this report and described in Appendix II

- **Did the State make any modifications to the existing system strategy?**

  Proposed revisions to the Capacity Development Strategy are presented in Appendix II and benchmarks for measuring system capacity are present in Appendix III. The Department previously made one program modification to the existing system capacity development strategy in 2005 that pertains to the preparation of the Strategy List. The Department's "Capacity Development Strategy", approved September 2000 by the USEPA, established that Strategy Lists would be prepared annually. Following the preparation of the 2001 Strategy List (December 2001) and the 2004 Strategy List (February 2004) it was deemed more practical (from a Program implementation viewpoint) to modify the activity of preparing the Strategy List from annual to once every three years. This adaptation in preparing the Strategy List will continue and allows efforts regarding the TMF evaluation and improvement process to be implemented with more efficiency. This modification favorably affects the implementation of the Program by focusing efforts on TMF evaluations and technical assistance.

APPENDIX I

CAPACITY DEVELOPMENT PROGRAM STATUS OF ACTIVITIES FOR SYSTEMS ON 2007 FINAL STRATEGY LIST

2007 STRATEGY LIST – HIGH PRIORITY COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (06/30/09)
0108021	Sea Village Marina	Ongoing radionuclide (gross alpha) MCL violations and exceedances of NJ secondary standards for sodium and TDS. Lead and copper treatment never permitted as final. Only one well that may be also ground water under the influence of surface water (GWUI). Inadequate storage and auxiliary power. TMF, ownership and legal problems.	Initial TMF capacity evaluation conducted in 2007. Recently purchased by new owner (Baywatch LLC). Held meetings with new owner to discuss alternatives and explain extensive corrective actions required for facility to remain as independent water system. Identified opportunity to connect with adjacent viable water purveyor (NJ American) and put new owner in contact with NJ American Water Co. representatives. Negotiations and planning needed to pursue this connection are underway.
0112002	Black Horse Manor	Lead and copper Action Level exceedances and subsequent monitoring and reporting violations. Financial problems.	NJDEP Bureau of Water Systems and Well Permitting currently processing permit application for required treatment. Plan to contact owner and schedule TMF capacity evaluation site visit in August/September 2009.
0251001	Ridgewood Water Dept.	Previously listed in 2001 and 2004.	Multiple visits, meetings, and follow up activities have resulted in progress in numerous areas such as ground water under the direct influence of surface water (GWUDI) testing on source wells, repairs to well houses, O&M manual development, asset inventory and asset management plan development started.
0326009	Wagon Wheel Estates	Previously listed in 2001. Second well no longer operating correctly. Inadequate storage.	Capacity development efforts initiated in October 2008. Owner viewed our efforts to help develop TMF capacity as harassment. Told owner we would discontinue efforts and let him deal with Compliance & Enforcement (C&E). System removed from Strategy List.
0339001	New Lisbon Development Center	Lead action level exceedances. Numerous monitoring and reporting violations (late and non-submittal).	Site visits, meetings, and conference calls with representatives of this State-run facility and its licensed operator. Agreed on new approach to correct lead problem and modify treatment for pH adjustment being implemented. Additional work (storage tank maintenance)

2007 STRATEGY LIST – HIGH PRIORITY COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (06/30/09)
			postponed - funding rescinded by Office of Management & Budget. System interested in applying asset management using Check Up Program for Small Systems (CUPSS) as TMF capacity development tool.
0436007	Winslow Twp MUA	Ongoing radionuclide MCL violations at various points of entry. VOC MCL violations at some points of entry.	No action by Cap Dev to date.
0601001	Bridgeton City Water Dept.	Ongoing radionuclide MCL violations at various points of entry.	No action by Cap Dev to date except to monitor efforts of NJDEP Enforcement (ACO and force majeure approvals extending deadline to 05/28/09) and NJDEP Bureau of Water Systems and Well Permitting (approved permit in 04/09).
0612001	Bayshore MHP	One well with nitrate MCL violations and second well with extremely high sodium levels exceeding the NJ secondary standards.	Conducted initial TMF capacity evaluation site visit in 09/08. Owner decided to eliminate well with high sodium, install nitrate and radionuclide treatment on other well. Discharge to septic needs to be resolved and property survey required for inclusion in permit applications. Continuing coordination/communication with owner, Enforcement, Region Manager, and permitting groups.
0811003	Colonial Estates	Ongoing radionuclide and mercury MCL violations. Connection to Monroe Twp. MUA was recently rejected by Colonial Estates.	Numerous meetings, site visits, and conference calls regarding system requirements and options. System owner currently re-evaluating connection with Monroe Twp. MUA through adjacent mobile home park, selling system infrastructure/ property to Aqua America, or upgrading system to remain an independent water system. Ongoing assistance to facilitating process and coordinate efforts with Enforcement and Region Manager.
1001301	Valley View Manor	Arsenic MCL violations.	No action by Cap Dev to date except to monitor DWSRF funding (closing postponed several times, but finalized in June 2009) and permitting status (application approved August 2008). Plan to contact system and conduct TMF capacity site visit in August/ September 2009. Coordinating with Region

2007 STRATEGY LIST – HIGH PRIORITY COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (06/30/09)
			Manager, Bureau of Water Systems and Well Permitting, and Enforcement.
1003001	Bloomsbury Twp	Violation of Bureau of Water Allocation permit # 5176 which expired 7/31/04. Third and final notice issued 9/27/06.	Numerous site visits and follow-up activities in 2008 leading to passing resolution #21-09 in February 2009 authorizing sale of water system infrastructure and property to Aqua New Jersey. Sales agreement has been executed, but sale subject to Board of Public Utilities review which is underway. System will be removed from Strategy List pending final sale.
1009001	Flemington Borough	Numerous pending NOV's for arsenic.	No action by Cap Dev to date.
1336308	Liberty Royal Rehab Center	Acute coliform MCL violations.	Initial TMF capacity evaluation site visit conducted in September 2008. Follow-up visit(s) in coordination with Enforcement and Region Manager required.
1414013	Sun Valley Park Co.	Using an unapproved source. Undersized mains and inadequate storage. Lacks adequate firm capacity to meet peak daily demand.	Initial TMF capacity evaluation site visit conducted on 06/12/09. Follow-up activities focusing on assisting owner with submission of required permit applications and discussion of best alternative for developing long-term financial viability of the system.
1427002	Mount Olive – Goldmine Estates	Well no. 1 does not recover during high demand. Well no. 2 (irrigation well) not permitted for potable use. Used tanker for temporary storage in 2005 & 2006.	No action by Cap Dev to date.
1438001	Cliffside Park	Exceedances of NJ secondary standards for iron and manganese. Recent lead and copper Action Level exceedance. Corrosion control treatment system in use not permitted. Undersized mains and inadequate storage.	Multiple meetings/visits with system representatives, local officials, and USDA. Providing assistance in implementing plans for Washington Township MUA to acquire and operate the Cliffside Park system. Continue facilitating process and coordination with C&E.
1511009	Pleasant Garden Apartments	Ongoing radionuclide MCL violations.	Worked with system representative, Enforcement, and Region Manager to get

2007 STRATEGY LIST – HIGH PRIORITY COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (06/30/09)
			system connected to Jackson Township MUA and decommission its wells. System removed from Strategy List.
1511011	Luxury Mobile Home Park	Notice of Violation issued 3/27/07 for various violations	No action by Cap Dev to date.
1920001	Stillwater Water District	Ongoing radionuclide (gross alpha) MCL violations.	Conducted initial TMF site visit on 05/29/09. Identified potential iron/manganese problem that could impact radionuclide treatment unit and need to evaluate wells for GWUDI. Coordinated follow-up efforts of licensed operator, consulting engineer, treatment unit vendor, and regulators to determine how to proceed while recognizing time constraints system faces to obtained American Reconstruction and Recovery Act stimulus funding. System interested in applying asset management using CUPSS as TMF capacity development tool.
1922014	Great Gorge Terrace Assoc.	Significant ongoing radionuclide MCL violations.	Enforcement issued system draft ACO in 04/09 stipulating connection to United Water Vernon Valley to address radionuclide problem, but system not executing ACO yet due to concerns over funding. Coordination with systems representatives, SRF Unit, Region Manager, and Enforcement to help resolve funding issues and establish compliance schedule.
1922028	Valley View Apartments	Uranium MCL violations at two points of entry. Connection to UW- Vernon Hills (1922015) still anticipated.	Coordinating efforts to get system to consider connection with United Water Vernon Valley (~100-200 feet away) instead of installing treatment and remaining an independent water system. Letter outlining concerns and requesting a meeting issued 06/5/09. Scheduled initial TMF capacity evaluation site visit for 07/01/09.

2007 STRATEGY LIST – HIGH PRIORITY NON-COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (6/11/09)
0106304	Buck Tavern	Acute coliform MCL violations.	Numerous site visits and follow-up activities in 2008. Owner had new well installed, but still had coliform problems. Site visit identified wrong type of UV light disinfection unit was installed and old well needed to be decommissioned. Got contractor to return and install correct UV unit at little/no cost to owner. Owner did not want to decommission well with Cap Dev assistance so this matter was referred to Atlantic County Health Department and Well Permitting for follow-up/enforcement. System removed from Strategy List.
0108352	DOT FAA Atl Bld 33& bld 208	Lead action level exceedance. Monthly coliform MCL violations.	No action by Cap Dev to date.
0113350	Glossy Fruit Farms	Periodic acute coliform MCL violations.	No action by Cap Dev to date.
0603322	Cumberland County 4H Center	Acute nitrate MCL violations.	Monitored activities by system, Small Water System Technical Assistance Unit, and Cumberland County Health Department to obtain approvals and install required treatment. TMF site visit planned for 08/09 to confirm adequacy of efforts and determine if any other areas need attention.
0612300	Stow Creek Elementary School	Radiological public notice required 10/19/06. Nitrate monitoring and reporting violation 1/16/07.	Monitored activities by system, Small Water System Technical Assistance Unit, and Cumberland County Health Department to obtain approvals and install required treatment. TMF site visit planned for 08/09 to confirm adequacy of efforts and determine if any other areas need attention.
0614345	Cumberland County Road Dept.	Lead action level exceedance. Volatile organic chemical MCL violations.	Monitored activities by system, Small Water System Technical Assistance Unit, and Cumberland County Health Department to obtain approvals and install required treatment. TMF site visit planned for 08/09 to confirm adequacy of efforts and determine if any other areas need attention.
1001300	Lester D Wilson School	IOC MCL violations	No action by Cap Dev to date.

2007 STRATEGY LIST – HIGH PRIORITY NON-COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (6/11/09)
1008300	Albert Elias Residential Group	Lead action level exceedance. Acute coliform MCL violation.	No action by Cap Dev to date.
1026301	ESC School	Lead and copper action level exceedances. Arsenic MCL violation.	Multiple site visits and follow-up activities performed in 2008 resulting in permit application for removal of radium, arsenic, and salt along with disinfection. Permitting Group approved permit application in 08/08. Large portion of funding had to be obtained from NJDOT prior to commencing construction of treatment units required large part of funding by NJDOT. Need to confirm status of funding and construction schedule. Will coordinate with Hunterdon County Health Dept, Bureau of Water Systems and Well Permitting and Bureau of Safe Drinking Water Implementation.
1106389	Hopewell Valley Golf Course #6	Arsenic MCL violations.	No action by Cap Dev to date.
1202315	American Cabinetry	Total Coliform Rule NOV issued 6/15/07.	Initial TMF site visit conducted in 01/08 subsequent to system deactivation (i.e. – non public status). Issued 05/13/08 letter requiring system to demonstrate TMF capacity prior to commencing operation as a NCWS should system be reactivated in the future. System removed from Strategy List.
1332351	Millstone Center	Acute coliform MCL violations.	Initial TMF site visit conducted in September 2008. Follow-up visit(s) in coordination with Monmouth County Health Department, C&E and Region Manager required.
1415301	Lotsa Pasta	TCR M&R NOV issued 6/15/07	No action by Cap Dev to date.
1615327	Westbrook School	Lead AL NOV issued 6/21/07.	No action by Cap Dev to date.
1803304	Somerset Hills Country Club	Copper action level exceedance. Monthly coliform MCL violations.	Numerous site visits and follow-up activities in 2008 and 2009 resulting in decommissioning of 2 abandoned wells and creation of O&M manual. Issued letter to system on 05/13/09 stating T&M capacity is adequate.
1808361	Tabatchnick Fine Foods	Arsenic MCL violations.	Site visit and follow-up activities in 2008. Letter issued on -05/18/08 stated system had adequate technical capacity pending re-

2007 STRATEGY LIST – HIGH PRIORITY NON-COMMUNITY SYSTEMS

PWSID No.	SYSTEM NAME	REASON LISTED	CURRENT STATUS/PLAN (6/11/09)
			designating well use from industrial to public supply. System complied in 07/08. No other capacity issues identified. System removed from Strategy List.
1813324	Otto Kaufman Community Center	Coliform MCL violations and coliform monitoring and reporting violations.	Site visit and follow-up activities in 2008 and 2009. Currently reviewing system's reply to 05/8/09 letter request for additional information.
1922304	Days Inn-94 Motor Lodge	Nitrate monitoring and reporting issued 3/20/06.	No action by Cap Dev to date.

APPENDIX II

CAPACITY DEVELOPMENT PROGRAM

PROPOSED REVISIONS TO NEW JERSEY'S CAPACITY DEVELOPMENT STRATEGY

Proposed Revision to New Jersey's Capacity Development Strategy

Overview

The 1996 Amendments to the Federal Safe Drinking Water Act (SDWA) create a focus on ensuring and enhancing the technical, managerial and financial (TMF) capacity of public water systems (PWS) to comply with the National Primary Drinking Water Regulations.

In response, New Jersey developed and implemented a Capacity Development Program (Program) including a Capacity Development Strategy (CDS) which describes our plans to assist existing PWS to acquire and maintain TMF capacity. The United States Environmental Protection Agency (USEPA) approved our CDS on September 28, 2000. In recent years, the Division of Water Supply decided to revise the CDS and relayed this intention to USEPA Region II, which responded by instructing us to discuss any proposed changes with its representatives before adopting the revisions. The proposed changes would then be formally submitted once USEPA Region II agrees the changes are acceptable. USEPA Region II did not indicate a need to adhere to the formal process used to create the original CDS, but did ask us to provide the following information:

- a description of proposed changes;
- a description of how the changes will continue to help systems acquire and maintain TMF capacity;
- a modified program implementation plan.

USEPA Region II also did not specify the need for formal stakeholder involvement, but we propose to conduct a series of open forum discussions facilitated by New Jersey Water Association (NJWA) and/ or other such entities to not only solicit their input, but also promote the idea that existing systems which would benefit from capacity development may simply request our assistance. Existing systems may use the same tools and resources we plan to employ either independently or by contacting us for assistance.

This document is provided as a draft of our proposed changes and should be used as the basis for the dialogue requested by USEPA Region II. The contents are organized in phases to reflect the step-by-step process associated with implementing the CDS and are shown on the attached flow chart. To adhere to the instructions provided by USEPA Region II, descriptions are provided on aspects to be retained, where change is proposed, and how the changes will continue to help systems acquire and maintain TMF capacity.

Phase 1: System Review and Strategy List Development

Phase 1 consists of three steps as illustrated on the attached flow chart. These steps center on the essential task of developing a Strategy List that identifies and prioritizes the PWS most in need of improving their TMF capacity. This task requires a review of available information for all PWS and the application of the approved methods/criteria to identify/prioritize PWS to generate the Strategy List. The task is currently performed on a triennial basis.

The existing CDS was reviewed to determine where improvement is possible and/or efficiencies might enhance overall Program performance. Based on this review, we conclude the original criteria and scoring system (see attached) are sound, so they will be retained. In addition, performing this task on a triennial basis is also considered appropriate so no change is proposed in this respect. The current process eliminates viable PWS from further consideration and ranks the remaining PWS as either high,

medium, or low priorities. The high priority PWS are targeted first and approached in the following order:

1. Community water systems with populations less than 3,300
2. Non-transient water systems that are schools, day care facilities and health care institutions
3. Transient non-community water systems which are restaurants and campgrounds, and
4. All other public water systems not covered above, starting with community water systems with populations greater than 3,300.

Once the high priority PWS are addressed the CDS shifts attention to the medium priority PWS and these systems are assisted in the same order as high priority PWS. This approach is sound and focuses on providing assistance to small, troubled PWS first, so it will be retained. However, some minor changes are proposed under Phase 1 (see Added Criteria for Prioritizing PWS) and Phase 3 (see Removing PWS from the Strategy List) to acknowledge the need for using enforcement action as the appropriate mechanism for bringing certain PWS back into compliance. To be clear, these PWS will be offered assistance and given ample opportunity to work cooperatively with us. If these PWS are not already subject to formal enforcement, the Program will refer the PWS to enforcement once they demonstrate our voluntary assistance efforts are not working.

The following paragraphs describe the changes being proposed. These changes are intended to improve the internal procedures used to develop the Strategy List, update the list of informational resources involved, and insert additional criteria for prioritizing which PWS will be addressed first.

The process used to prepare the 2001 and 2004 Strategy Lists involved a tedious review of information from databases, reports, and files for each of the approximately 4,000 PWS in New Jersey. In addition to reviewing this information for its intended purpose, Program staff spent inordinate amounts of time performing "quality control" efforts by identifying and correcting errors, omissions, inconsistencies, or misinformation contained in the databases. The transition from the former New Jersey Public Water System (NJPWS) database to the New Jersey Environmental Management System (NJEMS) and State Drinking Water Information System (SDWIS) databases to reduced the need for Program staff to perform quality control tasks. In addition, efforts are underway to develop an automated process to for querying NJEMS and/or SDWIS databases which should reduce the amount of time Program staff will spend generating the Strategy List in the future. This effort requires assistance from Data System Development, Data System Implementation, and/or Office Information Resource Management staff to assist Program staff in developing the necessary queries (see below).

<u>Database (NJEMS and SDWIS) Queries</u>

Most of the existing criteria used to identify and prioritize PWS for placement on the Strategy List are contained in NJEMS or SDWIS, which interface on a daily basis for data consistency. Queries will be designed to use the existing CDS criteria as search parameters and apply them to compile and organize the data to generate a list. Preferably, the computer program will be capable of applying the existing point system to rank the PWS from high priority to low priority. The resulting output would serve as a preliminary list which will be finalized by Program staff using the information available through the following sources.

Significant Noncompliance (SNC) List

The 1996 Amendments to Section 1420(b)(1) of the Federal Safe Drinking Water Act require each state to periodically submit to the USEPA Administrator a list of community water systems (CWS) and non-transient, non-community water systems (NTNCWS) with a history of SNC, and, to the extent practical, the reason(s) for their non-compliance. The purpose of these lists is to serve as a tool to assist state capacity development programs to strategically target those systems most in need of TMF capacity development. Given the specific purpose for the SNC List, New Jersey will continue to use it when preparing future Strategy Lists and the existing point scale will be retained. In addition, the SNC List is independently validated so use of this tool does not require Program staff to perform any "quality control" prior to use. However, our databases do not specifically identify whether or not a PWS is in SNC. Therefore, we will still have to perform this step manually unless we identify a way to design our queries to look for the fields that correspond to SNC definitions.

Survey Results

The idea that compliance equals capacity has guided previous capacity development efforts. However, this premise has been challenged of late as specific examples (e.g., Willor Manor) have been brought to the attention of the Program in the past year. The potential exists for a system to be in compliance based on water quality monitoring data, but otherwise be in real need of assistance to develop TMF capacity and long-term viability. Such systems might not be identified and/or rank high enough on the Strategy List to be targeted for assistance using the existing process. To address this concern, we propose to initiate a survey as a tool to identify these systems.

State, county, and local agencies will be directly surveyed to provide them the opportunity to apply their first-hand knowledge and experience to identify at least one (1) PWS within their jurisdiction for placement on the Strategy List. Survey forms will be developed and circulated to the agencies approximately six (6) months prior to the due date for the next Strategy List. The agencies will be asked to specify the reasons why the PWS is being identified for inclusion on the Strategy List. We should modify the existing point system to give added weight to PWS identified through this process the appropriate level of priority.

Added Criteria for Prioritizing PWS

Application of the existing criteria generates a Strategy List that includes a number of high priority PWS which are subject to enforcement action involving an Administrative Consent Order (ACO). In such instances, we propose conducting an initial outreach effort to engage these PWS to provide an opportunity for receiving assistance to develop TMF capacity concurrent with efforts to satisfy their ACO obligations. However, our tolerance level for continuing unproductive efforts should be low and enforcement of the ACO will then be the appropriate mechanism for bringing these PWS back into compliance. The Program notes technical assistance would still be available to such systems on an "as needed" basis through the Small System Technical Assistance and/or Licensed Operator components of the Program.

On a related topic, the Program has initiated discussions with enforcement and the Division of Law and Public Safety on the efficacy of adding language concerning the demonstration of TMF capacity to future ACOs. Such language would stipulate that by entering into an ACO, the PWS consents to complete a full TMF capacity evaluation as a final phase of its ACO compliance efforts. This measure

would provide an enforceable means to have existing PWS demonstrate adequate TMF capacity without requiring statutory and regulatory efforts. Such a measure might also reduce or eliminate the potential for the PWS to fall back into noncompliance in the future. Logistics and implementation will require further discussion and planning.

We propose a new, simple way to identify and prioritize PWS for TMF capacity assistance; simply request us to provide assistance. We will need to promote this idea and develop a simple way for PWS to contact us or submit a formal request. These PWS would then be added to the Strategy List and automatically be assigned a high priority. The actual rank on the list relative to other high priority PWS would then be determined by applying the numbered criteria described at the beginning of this section. This approach would also supplement the Survey Results discussed above.

Phase 2: PWS Participation, Background Research, and Assignment

Phase 2 consists of three steps as illustrated on the attached flow chart. Once the Strategy List is finalized, the program must secure the PWS participation. This step involves both oral and written communication with the PWS to explain the purpose of the contact, provide an overview of the Program objectives, and strongly encourage participation while explaining the benefits of participating and the consequences of deciding not to participate. The decision is then confirmed in writing.

Letters issued to those PWS who agree to participate will inform the PWS who is being assigned to provide assistance - Program staff or a service provider (to be secured through the new contract for services described in more detail later in this document). Letters issued to PWS deciding not to participate will provide an opportunity for them to change their decision within a limited time frame. PWS that change their decision within the time allotted will be issued the same type of letter as if they initially agreed to participate. PWS that do not reply or change their decision will be sent a subsequent letter confirming that they have been referred to enforcement and removed from the Strategy List.

The decision to assign the PWS to Program staff or the service provider will essentially be based on PWS type and size. Program staff will mainly be assigned the smaller community water systems (CWS), non-transient non community water systems (NTNCWS), and transient non community water systems (TNCWS). The service provider will mainly be assigned to the CWS not assigned to Program staff.

Program staff will conduct the required background research regardless of who is assigned to the PWS. This research involves a more comprehensive effort than the review step performed in Phase 1 and produces a written Background Report that serves to educate the individual(s) assigned to conduct the TMF evaluation site visit(s) for the targeted PWS. The Background Report contains basic information on the PWS along with the problem areas that should be initially pursued during the site visit(s).

Phase 3: TMF Capacity Development

Phase 3 consists of five steps as illustrated on the attached flow chart. These steps center on the core components of the CDS with respect to interaction with the PWS to identify where TMF capacity is lacking, develop plans for corrective action, and assist with implementing the recommendations.

The existing CDS process used NJWA as a service provider to conduct site visits for gathering the information necessary to assess TMF capacity. NJWA mainly focused on assessing technical and managerial capacity and relied on the PWS to perform/submit a financial self-assessment. NJWA then

compiled and submitted the information to the Program in a Findings Report. The Program would review this report, prepare an Improvement Plan designed to address TMF capacity problems, and present both documents to the PWS. NJWA then employed a circuit rider approach to assist the PWS implement the Improvement Plan. Once TMF capacity was achieved by successful implementation of the Improvement Plan, the Program would issue a Closure Report and remove the PWS from the Strategy List. Periodic follow-up was prescribed to see if TMF capacity was being maintained. Various forms and templates were developed by the Program to facilitate this process.

This overall process addresses the requirements of the SDWA and is straightforward. However, the circuit rider approach employed under the contract for services likely did not dedicate sufficient time and resources to any individual PWS. The circuit rider approach involves providing on-site assistance during infrequent site visits of limited duration. However, experience with implementing the CDS shows that most TMF capacity problems develop over years or decades. Offering assistance through a series of brief site visits conducted on an infrequent basis is not an effective strategy for reversing and correcting long-term TMF capacity problems.

Enter into new contract for services for technical assistance: The contractor will conduct site visits and TMF capacity assessments, help the PWS develop/implement an asset management plan (AMP), and provide technical assistance to CWS. The contract for services will require the contractor to dedicate the time and resources necessary to correct the TMF capacity problems identified. The contractor will have to demonstrate success in solving TMF capacity problems. If warranted, the contractor will refer the PWS to the Program for additional assistance with rate studies and rate setting (to be offered indirectly under a separate contract for services).

Use Program staff to provide direct assistance (see staff training, below): Staff from the Technical Assistance (TA) unit will conduct site visits, assess TMF capacity, and provide technical assistance to TNCWS, NTNCWS, and some of the smaller CWS to supplement the services provided by the contractor. The main focus for TNCWS and NCNTWS will be on technical capacity with some focus on managerial capacity. Financial capacity for these kinds of PWS is essentially linked to the success of the primary business associated with the PWS or the annual budget of the county/local government. Program staff will work closely with the TA staff to prepare the Findings Report and Improvement Plan for issuance to these PWS. Program staff will assist the PWS develop and implement an AMP and determine if the PWS receive indirect assistance with rate studies and/or rate setting.

Apply Asset Management: Program staff and the service contractor will introduce asset management to PWS as part of the Improvement Plan. The type of asset management tool selected for use at a given PWS will depend on the type, size, and overall capabilities of the facility. For example, CWS with sufficient resources might be offered assistance using the USEPA's Check Up Program for Small Systems (CUPSS) while other tools may be applied to small NTNCWS and TNCWS. Examples of other tools are the worksheets and instructions contained in "Asset Management: A Handbook for Small Water Systems (USEPA, 9/03) and "Taking Stock of Your Water System: A Simple Asset Inventory for Very Small Drinking Water Systems" (USEPA, 10/04).

Use TMF capacity benchmarks: The Program has prepared a Capacity Development Benchmark Document. The benchmarks developed for TMF capacity will be applied to gauge the level of capacity for a given PWS once the initial TMF capacity assessment is complete and measure the PWS progress in achieving TMF capacity once efforts are initiated to implement the Improvement Plan.

Update/expand existing forms and templates: The existing Technical/Managerial Capacity Assessment and Financial Self Assessment Forms will be updated/expanded to better facilitate AMP development. Additional forms will be developed or adapted from other areas within Water Supply (e.g., Water System Construction Permit Forms) to provide for more efficient assessment of TMF capacity.

Enter into new contract for services for Financial Planning and Rate Setting: The contractor will work directly with PWS to educate them on the concept of full cost pricing and train them on the use of rate setting software. The EFC Financial Dashboard and Rate Checkup™ (developed by the Boise State EFC), Small Utility Rate & Finances (Hawaii AWWA), and the DWSRF Rate Calculation (Missouri DNR) are examples of software available for use by PWS. Plans are currently underway to enable the EFC Financial Dashboard to interact with the CUPSS asset management software. This contract still needs to be developed.

Provide training to Program staff: The 2001 Report on Ongoing Implementation of the Capacity Development Program (NJDEP, 8/01) states the Maryland Center for Environmental Training provided a three day training course on Capacity Development to eleven (11) staff. Currently, only two (2) staff have been afforded meaningful training opportunities. Additional training is required for these staff and for the members of the TA unit. Topics for this training must cover federal and state SDWA regulations, how to efficiently navigate our databases (i.e. NJEMS, SDWIS, and Highview), and asset management.

Removing PWS from the Strategy List

The preferred path for removing a PWS from the Strategy List is when their cooperative efforts result in the development of adequate TMF capacity and a return to compliance with the SDWA regulations. However, the reality is that assistance cannot bring certain PWS into compliance and enforcement is required to achieve this goal. The CDS addresses this situation by "…excluding a PWS from the CDS process if it is in SNC and is incapable of, or refuses to undertake feasible and appropriate actions to develop adequate TMF capacity." This component of the CDS is important and will be retained, but procedures are being proposed guide when and how this type of PWS should be removed from the Strategy List.

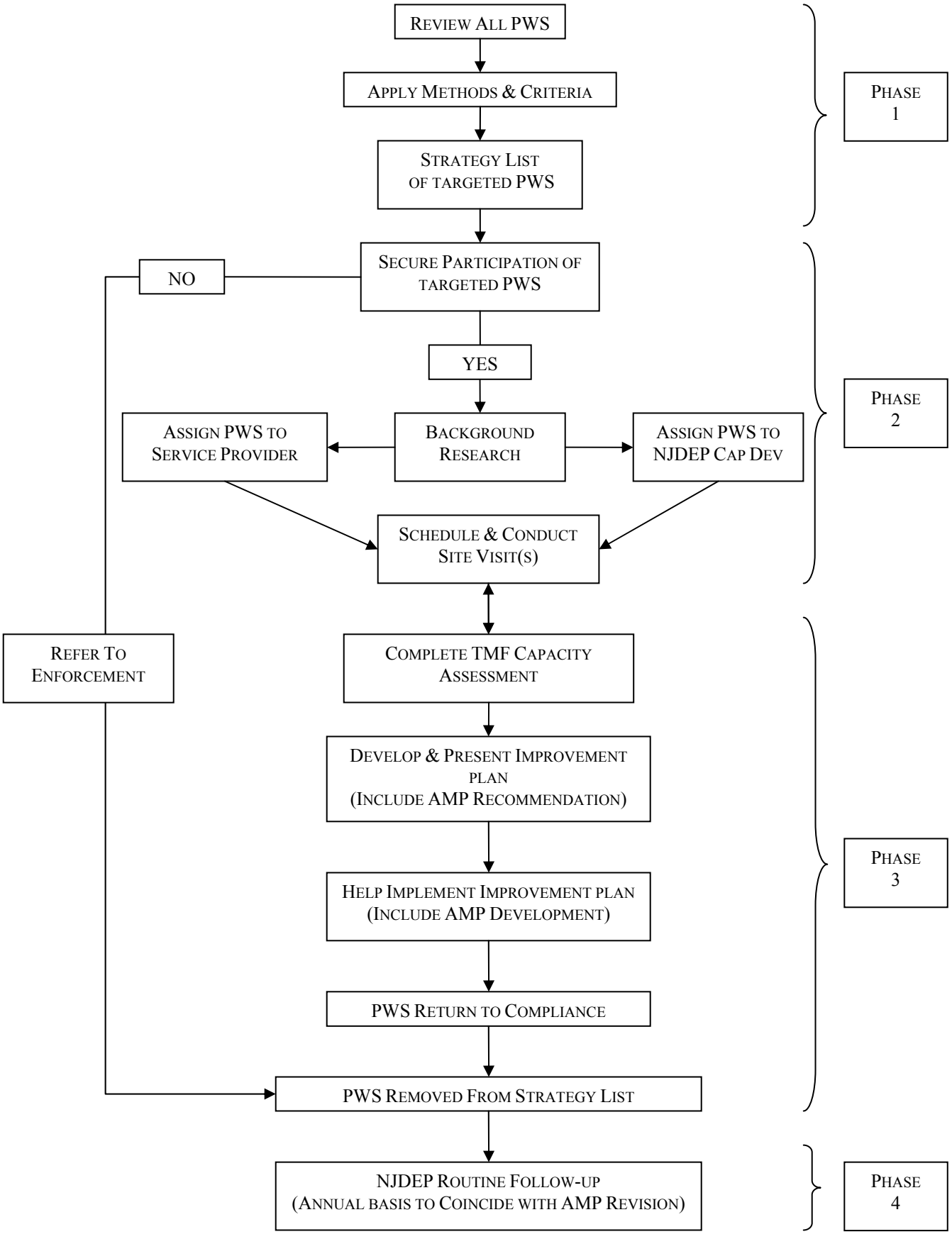
As currently written, the CDS calls for a PWS to be in SNC and either incapable of or unwilling to cooperate with the Program. To clarify, the Program should have the ability to exclude any PWS from the CDS process if it refuses assistance or is incapable of working cooperatively to develop adequate TMF capacity. SNC status should only be an additional indicator of the PWS unwillingness or inability to cooperate and should not prevent the Program from deciding to exclude a PWS from the CDS process.

As part of this change, we propose to define a fair process to identify uncooperative PWS, remove them from the Strategy List, and refer them to enforcement to achieve compliance. A "three strikes and you are out" approach is envisioned. Such a process will provide ample opportunity for a PWS to demonstrate its willingness to cooperate and afford continued participation. Conversely, in instances where significant deficiencies are identified during the TMF capacity assessment and the PWS refuses to address them through the Program, referral to enforcement should proceed.

Phase 4: Routine Follow-Up

The existing CDS specifies the performance of annual follow-up TMF assessments, but a formal procedure for documenting the performance of this task was not identified. This component of the CDS is important and will be retained. A tracking process will be implemented to identify which PWS are due for a follow-up TMF assessment with emphasis on scheduling this task to coincide with the annual review of the Asset Management Plan by the PWS. These follow-up efforts will be performed by Program staff.

TMF CAPACITY DEVELOPMENT PROCESS



CODES FOR STRATEGY LIST OF

PUBLIC NON-COMMUNITY WATER SUPPLIES

Category	Definition	Points
System Type	Non-transient non-community	2
	Transient non-community	1
System Classification		
	School	3
	Day Care Facility	3
	Health Care Facility	3
	Campground	2
	Restaurant/Deli	2
	Recreational Facility	1
	All Other Facilities	1
SNC Status	Yes, system is an SNC	4
	Long Term TMF	6
	Recalcitrance	6
	No, the system is not in SNC	0
MCL Violations		
	Total Coliform	3
	Volatile Organic Chemicals	2
	Nitrates	3
	Inorganic Chemicals	2
	Lead/Copper (Action Levels)	2
	Radionuclides	2
	Synthetic Organic Chemicals	2
	1-3 MCL Violations (same parameter)	-
	4-6 MCL Violations	+1
	7-9 MCL Violations, etc.	+2, etc
Formal Enforcement Actions		
	Yes, and violation(s) has been settled	1
	Yes, but outcome is still pending	3
	No formal enforcement actions	0
Monitoring/Reporting Violations > 3		
	Yes, M/R violations $\geq$ 3 violations	3
	4-6 M/R violations	+1
	7-9 M/R Violations, etc.	+2, etc
	No, M/R violations < 3 violations	0

PRIORITY CODES: **High Priority = ≥ 12**
Medium Priority = 7 to 11
Low Priority = ≤ 6

Note: Points for "System Type" and "System Classification" are not applied until all other scoring is conducted to determine if system should ranked on the Strategy List

CODES FOR STRATEGY LIST OF
PUBLIC COMMUNITY WATER SUPPLIES

Category	Definition	Points
Population Size	Less than 500	3
	500 – 3,300	2
	Greater than 3,300	1
SNC Status		
	Yes, system is a SNC	4
	Long Term TMF	6
	Recalcitrance	6
	No, system is not in SNC	0
MCL Violations		
	Total Coliform	3
	Volatile Organic Chemicals	2
	Nitrates	3
	Inorganic Chemicals	2
	Lead/Copper (Action Levels)	2
	Radionuclides	2
	Synthetic Organic Chemicals	2
	1-3 MCL Violations (same parameter)	-
	4-6 MCL Violations	+1
	7-9 MCL Violations, etc.	+2, etc.
Formal Enforcement Actions		
	Yes, and violation(s) has been settled	1
	Yes, but outcome is still pending	3
	No formal enforcement actions	0
Inspection Deficiencies		
	System is cited for Non-compliance	3
	System is in Compliance	0
Monitoring/Reporting Violations > 3		
	Yes, M/R violations $\geq$ 3 violations	3
	4-6 M/R violations	+1
	7-9 M/R violations, etc.	+2, etc.
	No, M/R violations, < 3 violations	0

PRIORITY CODES: **High Priority = ≥ 12**
Medium Priority = 7 to 11
Low Priority = ≤ 6

Note: Points for "Population Size" are not applied until all other scoring is conducted to determine if system should ranked on the Strategy List

Appendix III

Criteria and Benchmarks for Technical, Managerial, and Financial (TMF) Capacity

Capacity Development Program

Criteria and Benchmarks for Technical, Managerial, and Financial (TMF) Capacity

The Federal Safe Drinking Water Act (SDWA), as amended in 1996, establishes a focus on capacity development through two major provisions. First, section 1420(a) requires States to develop and implement programs to ensure that new systems demonstrate capacity. Second, section 1420(c) requires States to develop and implement programs to assist existing systems in acquiring and maintaining capacity. New Jersey's original Capacity Development Strategy (CDS) was approved by USEPA on September 28, 2000 and addressed the basic requirements detailed in Section 1420(c)2 regarding the development of a strategy to ensure the TMF capacity of existing public water systems (PWS) in New Jersey. The CDS described how New Jersey identifies PWS for placement on its Strategy List and how assistance would be provided.

Capacity is the ability of a PWS to plan for, achieve and maintain compliance with all applicable drinking water standards. Capacity Development (CD) focuses on cultivating a system's TMF capabilities to improve the system's long term viability.

This document has been prepared as part of an effort to revise/update New Jersey's approved CDS and will incorporate the concept of asset management as a central tool to developing long term planning for affected water systems. Asset management helps achieve and maintain the long-term viability of water systems by addressing five core questions: What is the current state of assets? What is the desired level of service? What are the critical assets? What is the minimum life cycle cost of the assets? What is the long-term funding plan? The answers are then used to develop an Asset Management Plan (AMP).

The benchmarks described in this document help measure whether or not a PWS has adequate TMF capacity to sustain its long-term viability. These benchmarks supplement the criteria defined in the approved CDS and together they will serve as the future standards to evaluate TMF capacity.

The components of TMF capacity are discussed separately on the following pages along with the evaluation criteria and benchmarks developed to measure if a PWS is achieving and maintaining TMF capacity. These benchmarks focus on ensuring each PWS has a basic knowledge of its system and adequate TMF capabilities to sustain the long-term viability of the utility. This approach is consistent with the SDWA, as amended in 1996, and concentrates on establishing a cooperative partnership with existing PWS in need of assistance. Repeated reference is made to current regulations throughout this document since current regulations serve as a basis for comparison between the current status of a PWS and the status the PWS should strive to achieve.

Technical Capacity

Technical capacity refers to the adequacy of the source, infrastructure, operation, and maintenance of a PWS. Infrastructure refers to the physical/mechanical components of the source, treatment, storage, and distribution network of the PWS. To demonstrate adequate technical capacity, a PWS must have adequate source and infrastructure, qualified personnel with sufficient technical knowledge available to operate and maintain the PWS, and an operator of the proper license and classification.

The approved CDS defines the following standards for determining if a PWS has adequate technical capacity:

1. The PWS is not in significant non-compliance (SNC) as defined by the USEPA,
2. The PWS does not have any continuing violations of New Jersey's Safe Drinking Water Act regulations (N.J.A.C. 7:10) and Water Supply Allocation Permit regulations (N.J.A.C. 7:19), and
3. The PWS is operating its system under a licensed operator of the appropriate license pursuant to N.J.A.C. 7:10A, "Licensing of Water Supply and Wastewater Treatment System Operators".

Technical capacity should address and/or include without limitation:

- the ability to consistently provide an ample quantity of safe drinking water to its customers
- projected water use
- a description of all major projects and planned expansions
- hydraulic analysis of distribution system and storage tank levels to address pressure problems
- source water adequacy
- source water protection
- water disposal issues
- licensed operator requirements
- laboratory needs
- compliance with state and federal regulations
- cross connection control program

The following sections clarify what information is needed to address the parameters listed above:

I. Infrastructure:

The PWS must possess basic knowledge on the location, age, construction, general condition, and anticipated service life remaining for all existing infrastructure associated with its source, treatment, storage, and distribution network. A scaled map showing the locations of the various infrastructure components must also be available. If the PWS does not have this basic information when the TMF capacity evaluation is performed, then the improvement plan for the PWS must specify the need to acquire the information. This knowledge is required for the PWS to develop an asset management plan that includes a capital improvement plan to operate, maintain, upgrade, refurbish, and/or replace existing infrastructure and add new infrastructure as necessary to operate the utility and maintain service in compliance with applicable laws, regulations, and standards. The capital improvement plan provides the description of all major projects and planned expansions. Possessing basic knowledge of the system and an asset management plan /capital improvement plan will serve as common benchmarks for all categories of infrastructure.

Records should be available to show the required permits/approvals were obtained and all conditions stipulated in those permits/approvals were met. If the records do not exist or are not available at the time of the TMF capacity evaluation, the improvement plan should instruct the PWS to work with the appropriate regulatory agency to determine the need for such documentation.

Additional benchmarks for source, treatment, storage, and distribution system infrastructure are provided below to further define how to determine whether or not a PWS has adequate technical capacity for its infrastructure.

A. Source

Discussions of source infrastructure must inherently include a discussion of the source itself. In this regard, the PWS must know the current and future projected use/demand as a prerequisite to demonstrating adequate source water supply. Available information from recordkeeping will show whether or not current demand is being met. Reference sources (e.g., master plans, planning board records, business plans, or school board plans) may be available to support projections on future development and population growth. This information should be used to estimate future use/demand. The PWS will then be in a position to know if the existing supply source is adequate and will remain so, or if an additional source(s) of supply water is needed.

The benchmark is the ability to demonstrate the existence of an adequate supply of source water capable of meeting current use/demand and, at a minimum, a plan to secure an adequate supply of source water to meet future projected use/demand. "Adequate supply" includes the existence of any required backup/duplicate well(s) and/or interconnections pursuant to N.J.A.C. 7:10, as applicable. Any PWS subject to the New Jersey Water Supply Allocation Rules, N.J.A.C. 7:l9 must also have a valid Water Supply Allocation Permit or Water Use Registration, as applicable.

Scaled Benchmarks:

- Unauthorized diversion or PWS has 4 or more violations over the term of a required permit/registration; current and future projected use/demand are unknown; current demand not met; no plans to address problems
- Authorized diversion but PWS has 2-3 violations over the term of a required permit/ registration; current use/demand is known but not always met; future projected use/demand and associated permitting needs are unknown; no plans to address problems
- Authorized diversion but PWS has 1 violation over term of permit/registration; current use/ demand is known and met; future projected use/demand and associated permitting needs are not clear, but there are plans to address lack of information
- Authorized diversion with no violations over term of required permit/registration; current use/demand is known and met; future projected use/demand and associated permitting needs are known, plans are in place to secure adequate supply to meet future use/demand

The following sections address source infrastructure. References to wells and intakes in these sections include equipment and appurtenances associated with source infrastructure such as well houses, meters, electrical devices, valves, and pumps. The evaluation of source infrastructure requires an assessment of each well and/or intake using the benchmarks described below.

1. Ground Water

The PWS must know the type of materials used to construct the well, well depth, open-hole/ screen interval, casing depth, casing diameter, annular space, pump type, pump capacity, and other relevant specifications for each well. Each well should also be permitted for use as a potable supply. The PWS must also know the distance from any septic system(s) and/or surface water bodies so that potential sanitary hazards and/or concerns about ground water under the direct influence of surface (GWUDI) water may be evaluated. If the PWS does not know this information and/or a well(s) is not permitted for potable supply, the improvement

plan must identify the need to obtain it so proper planning and/or appropriate action(s) is possible. Having the information described above and an asset management plan/capital improvement plan to operate/maintain the existing well(s), and eventually upgrade, refurbish, or replace the well(s) to conform to applicable regulations (N.J.A.C. 7:10 and N.J.A.C. 7:9D).

Scaled Benchmarks:

- Well not permitted and specifications are unknown, well condition is poor, water quality problems (e.g., coliform) exist, no plans to refurbish/replace the well.
- Well specifications known but do not conform to public supply well specifications, well not permitted as potable supply, well condition is poor, water quality problems (e.g., coliform) exist, no plans to refurbish/replace the well
- Well is permitted and design conforms to public supply well specifications, well condition is fair, sporadic water quality problems (e.g., coliform) exist and there are plans to refurbish/replace the well
- Well in good condition, permitted/designated as a public supply well, and no water quality (e.g., coliform) problems exist, and asset management plan/capital improvement plan contains long-term plans

2. Surface Water

New Jersey's Safe Drinking Water Act Regulations, N.J.A.C. 7:10-12 do not allow a public non-community water system (PNCWS) to use surface water as a source unless specifically approved by the administrative authority. When such approval is obtained, the regulations require the source infrastructure be constructed in compliance with standards for a public community water system (PCWS) as specified at N.J.A.C. 7:10-11. Any PCWS or PNCWS using surface water as a source should be able to demonstrate the source infrastructure is constructed in compliance with applicable regulations (N.J.A.C. 7:10-11).

To expand on the basic knowledge needed for a surface water source, the PWS must know the details for all meters, gauges, pumps, devices, and/or equipment required by the applicable regulations and the distance from septic systems and/or sanitary lines.

The benchmarks for demonstrating adequate capacity for source infrastructure under this scenario will possess all the basic knowledge and an asset management plan/capital improvement plan to operate/maintain the existing intakes(s), and to eventually upgrade, refurbish, or replace the intake(s).

Scaled Benchmarks:

- Intake specifications and permit status are unknown, intake condition is poor, water quality problems exist, and there are no plans to refurbish or replace the intake
- Intake is permitted but old and older design does not conform to current regulations, intake condition is poor, water quality problems exist, and there are no plans to refurbish/ replace the intake

- Intake is permitted and design conforms to current regulations, intake condition is fair, sporadic water quality problems exist, and there are plans to refurbish/replace the intake
- Intake in good condition, constructed/permitted in accordance with applicable regulations, no water quality problems exist, and asset management plan/ capital improvement plan contains long-term plans

Having a source water protection plan, as applicable, would be an additional benchmark for PWS with ground water and/or surface water sources.

B. Treatment

As a prerequisite, the PWS must know which, if any, contaminants exceed their respective primary and/or secondary drinking water standards based on analytical results. Data from raw water samples from new well tests, SWSTA sampling, GWUDI investigations, and source water monitoring per the Ground Water Rule (40 CFR 141) should also be evaluated for this purpose. Data quantifying contaminants may be from compliance monitoring samples collected by the PWS and/or new well test, complete profile, and/or small water system technical assistance (SWSTA) samples collected by the Department. The PWS needs this knowledge to:

- make informed decisions about the need for and type(s) of treatment requirements required
- comply with federal and state drinking water laws/regulations
- provide consumers with a ready and reliable source of water that meets the primary and secondary drinking water standards

For existing treatment infrastructure, the PWS must possess the basic knowledge described at the beginning of this Technical Capacity section. Infrastructure includes without limitation any units for chemical feed systems, pre-treatment, filtration, treatment processes, and disinfection. The PWS must also have an inventory of the chemicals/materials required for the various treatment processes and have an asset management plan/ capital improvement plan to operate/maintain the existing unit(s) and eventually upgrade, refurbish, or replace each treatment unit to conform to the applicable standards (N.J.A.C. 7:10). These criteria serve as benchmarks for demonstrating adequate treatment capacity under this scenario.

For situations where the installation of new infrastructure is required to remediate contaminant(s) detected above their respective primary and/or secondary drinking water standard(s), the PWS must identify the type(s) of treatment chosen to remediate any such contaminant(s) and provide a schedule to install the required treatment. The schedule must depict timelines and milestones for obtaining permits/approvals and installing the treatment unit(s) on or before any compliance date mandated by applicable regulations or set by an enforcement document (e.g., administrative consent order). Installation of the required treatment unit(s) in conformance with the approved permit(s) will be the benchmark for demonstrating adequate treatment under this scenario. Having an asset management plan/capital improvement plan that integrates the operation and maintenance of the new unit(s) along with plans to operate, maintain, upgrade, refurbish, or replace the new unit(s) will serve as an additional benchmark.

In either scenario, demonstrating regulatory compliance with the applicable standard(s) through compliance monitoring sampling results will also serve as a benchmark. If the PWS was in SNC

as defined by USEPA, then the PWS will not be removed from the Strategy List until the compliance monitoring results are processed and the PWS is no longer in SNC.

Scaled Benchmarks

- Water consistently has multiple contaminant(s) above primary standards; treatment unit(s) not installed or not maintained; no backup equipment available to meet demand when largest unit(s) out of service; no plans to address problems;
- Water consistently has at least 1 contaminant above primary standards; treatment unit(s) not installed or not maintained; no backup equipment available to meet demand when largest unit(s) out of service; no plans to address problems;
- Water occasionally has contaminant(s)above primary standards and consistently exceeds secondary standards, treatment unit(s) installed but O&M needs improvement; backup equipment in place to meet demand when largest unit(s) out of service, plan exists to address problems
- Water quality consistently meets primary and secondary standards, treatment unit(s) installed with proper O&M, backup equipment in place to meet demand when largest unit(s) out of service

C. Storage

For a PCWS, the system must know the basic information required to allow for a comparison to the requirements of N.J.A.C. 7:10-11.6 and 11.11 and whether the storage capacity is in compliance with the Water Supply Management Act Rules, N.J.A.C. 7:19-6.1 et seq.

For a PNCWS, the system must know the basic information necessary to facilitate a comparison with the requirements at N.J.A.C. 7:10-12.34 and 12.35.

The benchmarks for demonstrating adequate storage will be possession of this basic knowledge and an asset management plan/capital improvement plan to operate/maintain each existing storage facility, and eventually upgrade, refurbish, or replace the storage facility.

Scaled Benchmarks

- Storage capacity inadequate; facility past useful life, improperly designed, in disrepair, ill-equipped, and/or poorly maintained; finished water quality impaired; minimum pressure insufficient; no plans to address problems. Facility not inspected within last 5 years.
- Storage capacity adequate; facility has little remaining useful life, improperly designed, in disrepair, ill-equipped, and/or poorly maintained; finished water quality impaired; minimum pressure insufficient; no plans to address problems. Facility not inspected within last 5 years.
- Storage capacity adequate; facility has some remaining useful life and few if any design or equipment issues; existing O&M procedures could be improved; finished water quality satisfactory; sporadic problems with maintaining minimum pressure; plans exist to address problems. Facility inspected within last 5 years.

- Storage capacity adequate per applicable regulations; facility is new and/or in good condition with no design, repair, equipment, and/or maintenance deficiencies, finished water quality satisfactory, minimum pressure maintained. Facility routinely inspected at least every 5 years.

D. Distribution

For a PCWS, the system must know the basic information required to allow for a comparison to the requirements of N.J.A.C. 7:10-11.6, 11.9 and 11.10.

For a PNCWS, the system must know the basic information required to allow for a comparison to the requirements at N.J.A.C. 7:10-12.36 through 12.38.

In either situation, information from customer complaints, O&M records, and/or other sources must be used to identify conditions with the potential to affect water quality or service. Such conditions would include, but not be limited to areas with flow restrictions from deposits (e.g., iron or manganese), areas of low or high pressure, leaks/breaks, and improper/unauthorized connections. This information is necessary to identify what actions are required.

The benchmarks for demonstrating adequate distribution infrastructure will be possession of this basic knowledge and an asset management plan/capital improvement plan to operate/maintain the existing distribution system, and eventually upgrade, refurbish, or replace the various components of the distribution system.

Scaled Benchmarks

- Location, age, construction, and condition of distribution system components unknown; high percentage of unaccounted for water loss; history of customer complaints due to water quality, water pressure, and/or service interruptions with poor response times; no plans to address problems
- Limited knowledge on location, age, construction, and condition of distribution system; high percentage of unaccounted for water loss; history of customer complaints due to water quality, water pressure, and/or service interruptions with poor response times; no plans to address problems
- Location, age, construction, and condition of distribution system components known; low to moderate percentage of unaccounted for water loss; moderate volume of localized customer complaints due to water quality, water pressure, and/or service interruptions; poor response times; plans exist to address problems
- Location, age, construction, and condition of distribution system components known and mapped; low percentage of unaccounted for water loss; few if any customer complaints; water quality and pressure satisfactory; service interruptions are infrequent and receive prompt response when they occur

II. Qualified Personnel:

All system personnel involved with the operation and maintenance of the system must be qualified to perform the level of assigned work. To demonstrate their qualifications, the PWS must be able to show the personnel have the knowledge, training, and skills necessary for the position held and the tasks/duties routinely performed. The policies and procedures these personnel are to follow in the performance of their duties must be in included in the written detailed operations and maintenance procedures prepared by the licensed operator (see item III, below). In addition, the name(s), title(s), job description(s) and other relevant information such as training received/scheduled for these personnel must be included in the managerial plans (see Managerial Capacity section, below).

Scaled Benchmarks

- Personnel are unqualified to perform assigned work because they do not possess knowledge of system policies/procedures, have not been trained, and/or lack necessary skills
- Personnel are poorly qualified due to limited knowledge, received inadequate training, and/or do not possess all necessary skills
- Personnel are fairly qualified, but need to improve knowledge on system policies/procedures, require more training, and/or need to improve the skills they already possess
- Personnel are qualified to perform assigned work, know policies/procedures, are properly trained, and have all necessary skills

III. Licensed Operator:

For utilities where a licensed operator is required, the PWS must have a licensed operator of the appropriate license pursuant to N.J.A.C. 7:10A.

The licensed operator must perform the duties, maintain the records, and satisfy the reporting requirements of N.J.A.C. 7:10A-1.12. Regarding the requirement to have written detailed operations and maintenance procedures, this "O&M manual" must conform to the regulations, include all necessary plans (e.g., emergency management, source water protection, and water quality monitoring), and adhere to recognized industry standards for items including, but not limited to frequency of inspection and types of materials/additives used. An operations plan template is available from the Department for the licensed operator to use as guidance in preparing/revising an O&M manual. The O&M manual should also:

- provide clear, concise instructions for the licensed operator and/or qualified personnel to follow when performing assigned duties including without limitation the operation, routine inspection, preventive maintenance, necessary repair, and replacement of infrastructure components and/or any testing conducted on water;
- indicate which duties/tasks are not to be performed by the licensed operator and/or qualified personnel (e.g., do not perform work that require the services of licensed professionals such as well drillers, electricians, or plumbers);
- include provisions for personnel to document, record, and track work performed, and to report observations or recommended follow-up actions to the licensed operator and/or system manager to consider/implement;
- be consistent with any contracts for services maintained by the PWS (see Managerial Capacity section, below); and

- be routinely updated as warranted for consistency with the most recent version of the asset management plan/capital improvement plan for the PWS.

The licensed operator must demonstrate familiarity and ensure compliance with all applicable laws, rules, regulations, and license conditions. The licensed operator must submit the monthly Operating Report of Water Treatment Plants as required. These benchmarks clarify the responsibilities and the capabilities needed for a PWS to must demonstrate technical capacity for a licensed operator.

Scaled Benchmarks

- ⚫ No licensed operator as required
- 🔴 Licensed operator does not have the appropriate license; duties, recordkeeping, and reporting not performed as required; O&M manual does not exist or does not conform to regulations; licensed operator not familiar and/or does not ensure compliance with all applicable laws, rules, regulations, and license conditions; monthly reports not submitted as required.
- 🟡 Licensed operator has appropriate license but needs to improve performance of duties, recordkeeping, and reporting; O&M manual exists but does not fully conform to regulations; monthly reports submitted as required.
- 🟢 Licensed operator has appropriate license; performs all required duties, recordkeeping, and reporting as required; O&M manual current and conforms to regulations; licensed operator is familiar and ensures compliance with all applicable laws, rules, regulations, and license conditions; monthly reports submitted as required.

Managerial Capacity

Managerial capacity refers to the expertise required of the personnel who administer the overall water system operations. To assure adequate managerial capacity, the PWS must demonstrate that relative to its water system it has clear ownership, proper and organized staffing, effective interaction with regulators, and effective interaction with customers.

The approved CDS defines the following standards for determining if a PWS has adequate managerial capacity:

1. The owner(s) of the PWS is not in receivership;
2. The owner(s) of the PWS demonstrates clear ownership of the water system.
3. The PWS has a clear and defined organizational structure.
4. The PWS has established an emergency management plan.

Managerial capacity should address and/or include without limitation:

- identification of the owner(s) or other responsible legal body
- an organizational chart which also provides job descriptions and lists license/certification requirements for the personnel on the chart
- a representative who can be contacted in New Jersey
- operator training and certification
- licensed operator succession planning
- routine inspections of operations

- listing of O&M contracts
- emergency planning
- legal authority to implement requirements
- policies and procedures for interaction/communication with regulators
- policies and procedures for interaction/communication with customers

Consistent with the benchmarks for measuring all aspects of TMF capacity, a PWS must have asset management plan/capital improvement plan and use it to prepare/revise any other applicable plans required to demonstrate managerial capacity. Possession of a managerial plan that incorporates these plans (e.g., source water protection, water conservation, emergency response/management, security/safety, etc.) either directly or by reference to the licensed operator's O&M manual will serve as an additional benchmark.

Scaled Benchmarks

- PWS in receivership and/or cannot demonstrate clear ownership; organizational structure not clearly defined; no emergency management plan (if required), asset management plan/capital improvement plan, licensed operator succession plan or other required plans
- PWS not in receivership, but cannot demonstrate clear ownership; organizational structure not clearly defined; no emergency management plan (if required), asset management plan/capital improvement plan, licensed operator succession plan or other required plans
- PWS not in receivership and demonstrates clear ownership; organizational structure clearly defined; no emergency management plan (if required), asset management plan/capital improvement plan, licensed operator succession plan or other required plans
- PWS not in receivership and demonstrates clear ownership; organizational structure clearly defined; emergency management plan (if required), asset management plan/capital improvement plan, licensed operator succession plan and other required plans in place

Financial Capacity

Financial capacity refers to the monetary resources available to a PWS to support the cost of operating, maintaining, and improving the water system. To assure adequate financial capacity, the PWS must demonstrate it has sufficient revenues, credit worthiness, and fiscal management/controls to cover these costs.

The approved CDS defines the following standards for determining if a PWS has adequate financial capacity:

1. The PWS has an effective financial plan which accounts for revenues, operating expenses, reserves, and capital improvements for the next three years.
2. The PWS has an Operating Ratio and a Debt Service Coverage Ratio of greater than 1.0.
3. The PWS has sufficient reserve accounts to cover an operating cash reserve (12% of the annual O&M and general/administrative expenses) and emergency reserve for critical equipment replacement.
4. The PWS has an annual operating budget to demonstrate sufficient revenue to meet all expenses associated with SDWA compliance.

Other ratios (e.g., expense, sales, current, quick, per capita, receivable ratios) are also available to monitor the financial health of a PWS. The USEPA includes four indicators in its Check Up Program for Small System (CUPSS); the debt ratio (DR), expense ratio (ER), the OR, and sales ratio (SR). The Department is adding the DR, ER, and SR for consistency with USEPA and will retain the DSCR as an indicator, particularly for use with PNCWS.

Summaries of the DR, DSCR, ER, OR, and SR are provided below:

- DR - measures the amount of debt used by the PWS; in other terms, to what degree the utility is mortgaged. Values range from 0-1.0, where a lower number indicates better financial health. As an example, a DR of 0.6 means 60% of operations are financed with debt while the remaining 40% are financed by equity. Being burdened with heavy debt is not desirable for financial health.

  The DR is calculated as follows:

  DR = Total Liabilities / Total Assets
  Liability = Revenue from Loans
  Assets = Savings Withdrawal + Revenue from Grants + Revenue from Fees

- DSCR - measures the ability of a PWS to cover debt, over and above operating expenses. A DSCR that is 1.5 or greater is good, between 1.0-1.5 is considered acceptable, and less than 1.0 means there is insufficient revenue to cover the debt service. If a PWS has a DSCR less than 1.0, then it may be headed for bankruptcy or receivership.

  The DSCR is calculated as follows:

  DSCR = Annual Gross Revenues - O&M Expenses / Annual Principal & Interest Charges

- ER (operating expense/total expense) measures the amount of operating expenses compared to total expenses. Values range from 0 to 1.0. The higher the ratio, the more expenses are for operations, leaving less to cover non-operating costs (e.g., capital improvements and debt service) so a lower number indicates better financial health. When the ER is high, the PWS probably will not meet all of its capital related expenses, leading to a more rapid deterioration of the system infrastructure. In such instances, the PWS should try to identify ways to improve efficiency, reduce operating costs, manage finances better, and/or restructure rates.

  The ER is calculated as follows:

  ER = Operating Expense / Total Expense
  Operating Expense = Annual Operating Expense
  Total Expense = Total Annual Cost of Doing Business

- OR (operating revenue/operating expense) demonstrates the relationship between operating revenues and operating expenses. An OR greater than 1.0 indicates expenses are low relative to revenues, an OR of 1.0 indicates revenues equal expenses, and an OR below 1.0 indicates operating expenses exceed operating revenues. The goal is to have a value greater than one.

  The OR is calculated as follows:

OR = Operating Revenue / Operating Expenses
Operating Revenue = Sum of Revenue from (Fees + Grants + Loans + Other Sources)
Operating Expense = Annual Operating Expense

- SR (sales/total revenue) measures the percentage of total revenue generated by sales of operations (i.e. – from rates). An SR less than 1.0 may indicate the PWS is overly reliant on outside funding while an SR greater than 1.0 may indicate revenues are being drawn to non-utility purposes or generally mismanaged and this potential concern should be addressed. However, an SR greater than 1.0 generally indicates better financial health. Conversely, the ability of a PWS to sustain itself when the SR is less than 1.0 may be questionable, especially if the outside funding source(s) is jeopardized. The SR may be used to identify the need to adjust rates and illustrate/justify the level of any proposed rate increase to both consumers and regulators.

The SR is calculated as follows:

SR = Sales / Total Revenue
Sales = Revenue from Fees + Other Revenue
Total Revenue = Sum of Revenue from (Fees + Grants + Loans + Savings Withdrawn + Other Revenues)

Color coding helps to illustrate what these indicators are saying about the financial health of the PWS. Applying the symbolism associated with the colors red, yellow, and green is a generally accepted practice, is used in CUPSS, and is incorporated here.

For the DR and the ER, a value between 0 and 0.33 is **green**, a value between 0.34 and 0.66 is **yellow**, and a value between 0.66 and 1.0 is **red**.

For the DSCR, a value less then 1.0 is **red**, a value between 1.0 and 1.5 is **yellow**, and a value of 1.5 or greater is **green**.

For the OR, a value of 0.75 or lower is **red**, a value between 0.75 and 1.0 is **yellow**, and a value of 1.0 or greater is **green**.

For the SR, a value of less then 0.1 is **red**, a value between 0.1 and 0.5 is **yellow**, and a value greater than 0.5 is **green**.

Each of these ratios should be used to trigger responses by the PWS. Without going into detail for each ratio here, the following provides one possible example of how the PWS should respond to a high (**red**) DR. In such instances, the PWS should try to find ways to reduce debt, generate other revenues, or restructure rates to lower the DR and improve its financial health.

In summary, each of the ratios/indicators discussed above will serve as benchmarks for financial capacity along with the possession of an asset management plan/capital improvement plan that integrates the budgeting, reserve funding, and financial planning inherent in the process.

Scaled Benchmarks

- No financial plan for future revenues, operating expenses, reserves, and capital improvements; do not have information needed to calculate financial indicator ratios; insufficient reserve accounts; no annual operating budget; water system revenues are siphoned off for non-utility use.
- Financial plan exists, but does not cover future revenues, operating expenses, reserves, and capital improvements; financial indicator ratios in the red; insufficient reserve accounts; annual operating budget has insufficient revenue to meet all expenses; no asset management plan/ capital improvement plan, water system revenues are siphoned off for non-utility use.
- Financial plan exists and covers most but not all future revenues, operating expenses, reserves, and capital improvements; financial indicator ratios mix of red, yellow, and green; insufficient reserve accounts; annual operating budget has sufficient revenue to meet all expenses; no asset management plan/capital improvement plan, water system revenues dedicated for utility use.

- Financial plan covers future revenues, operating expenses, reserves, and capital improvements; financial indicator ratios in the green, sufficient reserve accounts; annual operating budget has sufficient revenue to meet all expenses; asset management plan/ capital improvement plan exists and is being implemented; water system revenues dedicated for utility use.