

**State of New Jersey  
Department of Environmental Protection  
Water Supply Administration  
Bureau of Safe Drinking Water Technical Assistance**

**CAPACITY DEVELOPMENT PROGRAM**

**REVISIONS TO NEW JERSEY'S  
CAPACITY DEVELOPMENT STRATEGY**

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## **Revisions 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 described how New Jersey planned to assist existing PWS to acquire and maintain TMF capacity. The United States Environmental Protection Agency (USEPA) approved New Jersey's CDS on September 28, 2000. As envisioned in the SDWA Amendments, the Program subsequently evaluated the CDS to determine if revisions were warranted.

The Division of Water Supply first notified USEPA Region II of its decision to consider revising the CDS in the Drinking Water State Revolving Fund (DWSRF) set-aside work plan for SFY2008 and continued to update USEPA in the Capacity Development (CD) Annual Report for SFY2008 and DWSRF set-aside work plan for SFY2009. This process resulted in the submission of a document entitled "Proposed Revisions to New Jersey's Capacity Development Strategy" to USEPA as part of the CD Annual Report for SFY 2009. The proposed revisions discussed the various phases of the capacity development process for existing systems and included components USEPA asked the Program to address, such as describing:

- the proposed changes
- how the changes will continue to help systems acquire and maintain TMF capacity, and
- the modified program implementation plan

In addition to providing USEPA an opportunity to establish a dialogue and help finalize the proposed revisions, the Program gave stakeholders the opportunity for involvement over the past year by soliciting input at various forums during SFY2010. Most notably, input was solicited at the annual Safe Drinking Water Course held at Rutgers University in January 2010, the NJ American Water Works Association annual conference in Atlantic City in April 2010, and at the "Enhanced Water Utility Management" training sessions hosted by the New Jersey Water Association (NJWA) at three (3) separate locations in June 2010. During this same period, the Program continued its evaluation of the CDS including scrutiny of the revisions it proposed last year, particularly those dealing with the generation of a Strategy List.

This current document now constitutes the "Revisions to the New Jersey's Capacity Development Strategy". The contents are organized to coincide with the step-by-step process associated with implementing the CDS and the phases are shown on the attached flow chart. Descriptions are provided on the aspects the Program will retain, where changes are made, and how those changes continue to help systems acquire and maintain TMF capacity.

### **A. 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 to identify and prioritize the PWS most in need of developing their TMF capacity. This task requires a review of available information for all PWS and the application of both existing and newly developed methods/criteria to identify/prioritize PWS on the Strategy List. The task is currently performed on a triennial basis and will continue to be performed at this frequency.

The existing CDS and the revisions proposed last year were reviewed again along with the limited stakeholder response received. Based on this review, the original criteria and scoring system are considered sound. However, the Program modified how it applied the original criteria and added a newly developed criterion while preparing the 2010 Strategy List. The modified approach changed how the Significant Non-Compliance (SNC) status criterion was applied and did not apply the Formal Enforcement Action (FEA) taken criterion. However, the modified approach added an "Identification by Regulatory Agency" criterion which allowed the various offices in the Water Resource and Compliance & Enforcement programs to use their first-hand knowledge and experience to identify PWS for inclusion on the 2010 Strategy List. This added criterion focused on identifying PWS which exhibit signs of deteriorating infrastructure, inadequate staffing, licensed operator problems, poor organization, lack of written policies/procedures, poor O&M practices, and/or signs of financial trouble. The results of this survey enabled the Program to identify and prioritize systems with potentially serious TMF capacity issues and add them to the 2010 Strategy List along with systems identified via existing criteria (e.g. - MCL violations, M&R violations, and deficiencies noted during compliance evaluation inspections).

The decision to use a modified approach to prepare the 2010 Strategy List reflected consideration of how to best apply the Program's available resources without diminishing the quality of the end product - a valid Strategy List for focusing Program resources. As stated above, plans for adopting a modified approach and conducting a survey to solicit direct input from regulatory agencies were relayed to the USEPA as part of the CD Annual Report for SFY 2009. Please note the survey was not fully implemented as proposed because the county and local agencies were not surveyed. Therefore, the approach used to prepare the 2010 Strategy List is viewed as a first phase for implementing the plan. As implemented the survey identified 27 community water systems (CWS) and 16 non-community water systems (NCWS) which might not have otherwise been placed on the list or ranked high enough to receive Program assistance.

Therefore, the Program views the decision to integrate the survey of regulatory agencies into the process for identifying and prioritizing public water systems as an improvement to implementing its Strategy. In addition, implementing the survey of regulatory agencies in a phased manner will enable the Program to better evaluate this approach prior to full scale implementation which will require State, county and local agencies to dedicate more time/resources to participate in the process. Based on the outcome of this pending evaluation, the Program will decide whether or not a full-scale survey will be conducted to prepare the 2013 Strategy List.

The following paragraphs describe the changes adopted by the Program. These changes are mainly designed to improve the internal procedures used to develop the Strategy List, update the list of informational resources involved, and describe the added criteria for identifying/prioritizing PWS.

1. New Jersey Environmental Management System (NJEMS) & State Drinking Water Information System (SDWIS)

The New Jersey Public Water System database no longer exists so the Program now employs the NJEMS and SDWIS databases. To date, the Program determined most of the criteria used to identify and prioritize PWS on the Strategy List are contained in NJEMS or SDWIS which allows the Program to automate much of the process. As a result, queries are now available to apply existing CDS criteria as search parameters to compile and organize data in the databases. The results are then transferred to a spreadsheet where the CDS point system is applied to calculate a priority level for each PWS on the Strategy List. The resulting output serves as a preliminary list which is finalized by Program staff using the information available through the following sources.

a. Significant Noncompliance (SNC) List/Enforcement Targeting Tool (ETT)

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 and non-transient, non-community water systems 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 although this will require the use of the ETT since it is replacing the SNC List. This step will continue to be performed manually unless/until queries can be designed to look for the fields in our databases which correspond to those criteria used to prepare the ETT. The Program will evaluate how to assign points for systems identified by the ETT when preparing future strategy lists.

b. 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 have been brought to the attention of the Program in recent years. 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. As discussed above, the Program conducted a survey to address this concern and identify such systems for inclusion on the 2010 Strategy List although the survey was limited to State agencies and is considered a first phase effort.

Moving forward, the Program plans to evaluate the results of this first phase and will directly survey State, county, and local agencies to identify PWS for possible placement on the Strategy List. This step will require the Program to develop forms and circulate them to the agencies approximately six (6) months prior to the due date for the next Strategy List. The forms will require the agencies to apply objective criteria and specify the reasons why the PWS is being identified for inclusion on the Strategy List. In addition, the existing point system must be modified to give added weight to PWS identified through this process and assign the appropriate priority level.

2. Added Criteria for Prioritizing PWS

- a. Strategy lists tend to include a number of PWS which are subject to enforcement action involving an Administrative Consent Order (ACO). In such instances, the Program plans to conduct an initial outreach effort to engage these PWS and provide an opportunity for developing TMF capacity concurrent with satisfying their ACO obligations. However, the Program may limit its involvement in such instances to assisting the PWS in complying with the ACO or simply monitoring their ACO compliance, deferring the conduct of a complete TMF capacity evaluation until the PWS has satisfied the terms of the ACO. Such decisions may also be resource dependent.
- b. The Program is reconsidering its previous proposal to allow PWS to simply ask to be added to the Strategy List and assigned a High priority due to limitations with available resources and the potential to divert resources from PWS most in need of assistance in developing TMF capacity. At this time, any PWS which contacts the Program will certainly be advised on available tools and resources for developing TMF capacity and

potentially referred to the Small System Technical Assistance program for further assistance.

## **B. 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 and evaluate/assist them in the order defined in the CDS:

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 will be retained because it focuses on providing assistance to small, troubled PWS first. However, the Program's ability to attend to Medium priority PWS will depend on factors such as the number of High priority PWS on the Strategy List, the level of effort the Program may need to provide to correct TMF capacity issues for those High priority PWS, and available resources.

The first step of this phase involves both oral and written communication with the PWS to explain the purpose of the contact, provide an overview of the Program, and encourage participation. The Program will then conduct the necessary background research for each participating PWS and produce a written Background Report which serves to educate the individual(s) assigned to conduct the TMF capacity evaluation and site visit(s) for the PWS. This Background Report will contain the basic information on the PWS along with the problem areas that should be initially pursued during the site visit(s). Letters will be issued to PWS which decline to participate to confirm their decision and their removal from the Strategy List with copies to the administrative authority for the PWS, including the regional Compliance and Enforcement office if warranted.

Program staff or the service provider will then contact the PWS to schedule and conduct the site visit(s) required to initiate the on-site TMF capacity evaluation.

## **C. 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 Program recommendations for improving TMF capacity.

The existing CDS process used NJWA as a service provider to conduct site visits for gathering the information necessary to assess TMF capacity. In accordance with the former contract for services, NJWA mainly focused on assessing technical and managerial capacity and relied on the PWS to perform a financial self-assessment. The information obtained was compiled into a Findings Report and submitted to the Program which would review the report and prepare an Improvement Plan designed to address TMF capacity problems. The Program would then send 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 implementing 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, while the circuit rider approach helped several PWS achieve and maintain TMF capacity, the Program felt more time and resources needed to be dedicated to many PWS on the Strategy List. The circuit rider approach involves providing on-site assistance during 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. To address this concern, the Program will:

1. 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.

2. Use Program staff to provide direct assistance

Program staff will continue to conduct site visits, assess TMF capacity, and provide technical assistance to PWS 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.

3. Apply Asset Management

The Program and service contractor will introduce asset management and recommend its use by the 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, the use of USEPA's Check Up Program for Small Systems (CUPSS) will likely be recommended to both small and medium size community water systems that demonstrate the capability to employ the tool. However, the use of other tools such as the "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) would likely be recommended to very small community water systems and non-community water systems. The Program will also recommend that medium to large-size community water systems which do not already employ asset management identify and begin utilizing an asset management program suitable for their needs.

4. Use TMF capacity benchmarks

The Program will apply the benchmarks developed for TMF capacity to gauge the level of capacity for a given PWS once the initial TMF capacity assessment is complete. The benchmarks would then be periodically re-evaluated to measure the progress a PWS in achieving TMF capacity once efforts are initiated to implement the Improvement Plan.

5. Update/expand existing forms and templates

The existing Technical/Managerial Capacity Assessment and Financial Self Assessment Forms will be updated and/or 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 and to enable the Program to apply the scaled benchmarks it developed to initially gauge and measure improvement of TMF capacity.

6. Enter into new contract for services for Financial Planning and Rate Setting

The Program continues to value this service since it would no doubt benefit those systems struggling with setting equitable rates that also cover the full cost of business. However, the Program needs to assess its ability to prepare, bid, and oversee another contract for services and determine if alternative means (e.g. – refer systems to existing non-profits) are available before it commits to this activity.

While this assessment is being conducted, the Program will inform PWS on the importance of full cost pricing and budgeting along with the existence of available rate setting and budgeting 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.

7. Provide training to Program staff

Additional training is required for Program staff on an ongoing basis. Topics for this training must cover federal and state SDWA regulations, how to efficiently navigate the Department’s databases (i.e. – NJEMS, SDWIS, and Highview), asset management planning, treatment technologies, customer service, and public speaking.

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, a return to compliance with the SDWA rules, and the long-term viability and sustainability of the PWS. 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 to 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 for excluding 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 (if the PWS is not already subject to enforcement action). Until the Program defines the process, decisions will be made on a case-by-case basis.

**D. 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

