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State Strategies to Assist Public Water Systems in Acquiring and Maintaining Technical, Managerial, and Financial Capacity

A Comprehensive Summary of State Responses to Section 1420(c) of the Safe Drinking Water Act

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Executive Summary

Section 1420(c) of the Safe Drinking Water Act (SDWA), in conjunction with SDWA Section 1452(a)(1)(G)(i) established a withholding of Drinking Water State Revolving Fund (DWSRF) monies if a State failed to develop and implement a strategy to help public water systems (PWSs) acquire and maintain technical, managerial, and financial capabilities. States that failed to develop and implement a strategy by August 6, 2000 would have incurred a 10% withholding in fiscal year 2001.

EPA Headquarters and the EPA Regions approved strategies from all 50 States and Puerto Rico and therefore no DWSRF funds were withheld. States, and Puerto Rico are still subject to a 15% withholding in fiscal year 2002, and 20% withholding in subsequent years if they do not successfully document on-going implementation of the strategy.

Section 1420(c)(2) required that States, in preparing their capacity development strategies, consider, solicit public comment on, and include as appropriate the following:

A. The methods or criteria that the State will use to identify and prioritize the PWSs most in need of improving technical, managerial, and financial capacity.

B. A description of the institutional, regulatory, financial, tax, or legal factors at the Federal, State, or local level that encourage or impair capacity development.

C. A description of how the State will use the authorities and resources of this title or other means to assist PWSs in complying with National Primary Drinking Water Regulations (NPDWRs); encourage the development of partnership between PWSs to enhance the technical, managerial, and financial capacity of the systems; and assist PWSs in the training and certification of operators.

D. A description of how the State will establish a baseline and measure improvements in capacity with respect to NPDWRs and State drinking water law.

E. An identification of the persons that have an interest in and are involved in the development and implementation of the capacity development strategy (including all appropriate agencies of Federal, State, and local governments, private and nonprofit PWSs and PWS customers).

This document summarizes each State's response to SDWA Section 1420(c)(2)(A-E). In addition to each State summary, Attachment 1 at the end of this document contains a number of tables that allow for easy comparison among the State programs. Attachment 1 includes:

- Table A1 which compares the methods or criteria to identify and prioritize PWSs in need of technical, managerial and financial assistance. It includes information on the sources each State used to gather information about systems, the criteria used to evaluate systems, and the method of prioritization (e.g., points system, matrix, etc.).

- Table A2 which provides a more detailed explanation of each States' prioritization scheme and lists how systems are ranked (i.e., the State's first, second, and/or third priority).

- Table B1 which provides a list of the common factors the States identified as enhancements or impairments to capacity development.

- Table B2 which lists the less commonly identified technical, financial, legal, and tax factors.

- Table C illustrates how the States will use the authority and resources of SDWA to help PWSs achieve and maintain capacity. The Table is divided into how each State is:

  < Helping systems achieve compliance;
  < Encouraging partnerships; and,
  < Helping systems train and certify operators.

  EPA has compiled this table based on submissions of State Capacity Development Strategies. The table may not reflect every element of a State's program. The focus of the table is on new initiatives being developed as part of the State's capacity development strategy for existing systems, and not the State's entire drinking water program.

- Table D which compares how the States established a baseline and how they plan to measure improvements.

- Table E which compares the methods used by the States to identify stakeholders and other interested parties.

Alabama

I. Solicitation and Consideration of Public Comments

The Alabama Department of Environmental Management (ADEM) established a Drinking Water Advisory Committee to consider and provide comments on capacity development strategy proposals. Participating stakeholders represented a total of 28 governmental, environmental, business, scientific, technical assistance (TA), and citizen organizations. ADEM also solicited comments on capacity development during three Drinking Water Advisory meetings, held in February 1998, March 1999, and November 1999. ADEM incorporated comments into the written strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

To assess the status and needs of PWSs in the State, the Water Supply Branch (WSB) of ADEM will continue to conduct annual inspections of all systems in the State. Since most of the PWSs are publicly funded and operated, WSB can gather financial information during quarterly meetings with the U.S. Department of Agriculture Rural Development office (USDA-RD) and the Alabama Department of Economic and Community Affairs (ADECA). WSB will supplement this information with managerial and financial data collected through on-site visits by the Alabama Rural Water Association (ARWA). ARWA will generate a document that addresses the status of several capacity components. WSB will use all of this data to rank systems based on need for assistance.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The factors that encourage capacity development in Alabama include: the water supply permit process (including stringent design and treatment requirements), the operator certification/continuing education program, and strong enforcement. An active enforcement program has caused the number of systems to go down, but has not placed constraints on growth. ADEM does not identify any factors that impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

WSB staff conduct annual inspections of each PWS. These inspections help staff identify physical and operational constraints to the production and distribution of high quality drinking water. Staff thoroughly assess each system's technical capacity, considering issues such as water capacity, storage, operator certification, monitoring plans, source water assessment status, redundancy of essential equipment, cross connection control, and other indicators of capacity.

WSB is using a portion of the authorized set-aside funds from the DWSRF program to contract with the ARWA:

- To evaluate the capacity of systems through on-site visits. Since WSB's annual inspections focus on technical capacity, ARWA will focus on identifying deficiencies in managerial capacity. Additional circuit riders with ARWA will work closely with rural water systems throughout the State to address debt repayment, monthly operation report submissions to the WSB, complaints and concerns of customers, water loss, and other problems.
- To conduct five training sessions throughout Alabama to instruct management level personnel on the importance of their decisions to the technical and financial future of the water system. The training sessions also provide information on the use of new technologies and on WSB's water supply, treatment, and distribution requirements.

WSB also provides training on capacity requirements to planners, water systems, and towns that plan to apply for ADECA funds.

2. Encouraging the Development of Partnerships Between PWSs

Stringent design and treatment requirements have prompted systems without adequate financial resources or technical expertise to consolidate. The number of PWSs in Alabama has continually declined since 1978, even while the number of total customers has increased during the same period.

3. Assisting PWSs with the Training and Certification of Operators

All community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) in Alabama must have a certified operator. Certificates are valid for three years. Operators must complete a minimum of 24 Continuing Education Hours (CEHs) and submit a renewal application to receive a new certificate. The Alabama Water and Wastewater Institute and AWRA provide the majority of operator training courses in Alabama. ADEM provides information about the operator certification program, including the schedule and location of training sessions, on its Web site.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

ADEM will set a baseline against which they will measure improvements in system capacity by examining information from annual inspections and on-site visits, and by meeting with USDA-RD and ADEC on system finances. ADEM will compare the information from year to year to determine if system capacity has improved.

ADEM will also examine trends in compliance percentages to measure overall improvements in capacity. Since water systems in Alabama have had high compliance rates with National Primary Drinking Water Regulations (NPDWRs) for several years, the information gathered on specific systems will likely be a more useful tool.

E. §1420(c)(2)(E): Identification of Stakeholders

ADEM designed the Drinking Water Advisory Committee to reflect all elements of the drinking water community. Members were drawn from ADEM and other State agencies, citizen groups, local

government coalitions, business organizations, and others. Examples of members include: Consulting Engineers Council of Alabama, Alabama Rivers Alliance, Alabama League of Municipalities, and the Business Council of Alabama.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Through regular inspections and communication with TA providers and funding agencies, WSB will identify PWSs that lack adequate capacity and direct resources towards those systems. WSB will review financial assistance applications submitted to USDA-RD and ADECA as an additional method of identifying deficiencies. WSB will join with these organizations to educate water system managers on capacity issues. These efforts will supplement the existing operator certification/training and operating permit requirements to help ensure that all PWSs in Alabama have the ability to provide safe drinking water.

IV. Implementing the Strategy and Evaluating Progress

Alabama is already implementing many aspects of its capacity development strategy, including annual inspections and on-site visits by ARWA circuit riders, monthly meetings with ARWA, quarterly meetings with USDA-RD, participating in ADECA training workshops to inform funding applicants about capacity requirements, and the operator certification/training and permit programs. ADEM will continue to implement all of these activities and programs and make changes to the strategy as needed.

Alaska

I. Solicitation and Consideration of Public Comments

The Alaska Department of Environmental Conservation (ADEC) convened a Citizens Advisory Board (CAB) to advise the Department on the development of the strategy. ADEC sent out an extensive mailing to solicit interest in serving on the CAB. The CAB met in each of the three largest communities in the State.

During 1999 and 2000, the CAB considered the challenges and opportunities facing PWSs in Alaska. The Board developed a *Report of Findings* which presented their conclusions and their recommendations to ADEC. ADEC staff presented the *Report* at conferences and meetings throughout the State. ADEC distributed a questionnaire asking for public comment on the *Report*, posted it on their Web site, and included notices announcing the release of the *Report* in Departmental publications.

Few people attended the CAB and other public meetings, and ADEC did not receive many comments on the *Report* or completed questionnaires. The Department responded to public comments and considered all of CAB's findings and recommendations included in the *Report.* ADEC used the *Report* and public comments to develop the final strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The CAB developed a matrix system for prioritizing PWSs in need of TMF assistance. Certain factors related to compliance problems are ranked as high, medium, or low risk. For example, in assessing a system's monitoring and reporting, a system that is in compliance would receive a high while a system on the SNC list for coliform bacteria would receive a low. Each factor is multiplied by a relative weighting factor which the Board believed was needed to account for the relative risk of each factor. ADEC is planning on adopting the CAB matrix in some form.

Using PWS records and the SNC list, and by consulting with representatives that have knowledge of system needs, the Department will select 50 PWSs to form a round table panel. The panel will rank the selected PWSs according to the risk matrix. ADEC will provide assistance to the 50 ranked systems that are willing to cooperate and to systems that voluntarily request TMF assistance.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

ADEC concurred broadly with the lists of factors that enhance or impair capacity provided by the CAB in the *Report*. CAB identified 114 impairments and 50 enhancements and chose to note 77. ADEC decided to focus its efforts on the factors on which it could have some impact. Those factors that were outside the Agency's influence and control were not considered.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

The CAB listed 14 programmatic changes that ADEC should make during the initial implementation of the strategy. ADEC chose to implement half of the recommendations.

1. Assisting PWSs with Compliance

ADEC will use the matrix (described above) to provide information on a system. This information will be used in conjunction with the activities listed below to enhance the system's ability to comply with National Primary Drinking Water Regulations (NPDWRs).

- Enhanced sanitary survey. ADEC is working to modify their existing sanitary survey form to include additional technical and managerial capabilities. The information gathered through the sanitary survey will be used to measure improvements and to make changes to the State's strategy.
- System self-assessment. ADEC in cooperation with the Alaska National Rural Water Association has developed a self-assessment guide to allow public water system owners and operators to evaluate their own capabilities.
- Regulatory Commission of Alaska (RCA). ADEC will work with RCA to streamline regulatory processes for PWSs.
- Training. ADEC is working with one of its partners to develop an outline of training needs.
- Water metering. Proposed regulatory changes would require one water meter per PWS prior to obtaining final operation approval.
- Early notification of rule changes. ADEC will continue to provide information to the public through the use of the advisory boards, workshops and publication of a newsletter.
- DWSRF grants and loans. Alaska has passed legislation that will allow privately owned PWSs to be eligible for DWSRF starting July 1, 2001.

2. Encouraging the Development of Partnerships Between PWSs

ADEC will include information about the development of partnerships in all training products and educational materials. In addition, the Department will provide information to individual systems.

3. Assisting PWSs with the Training and Certification of Operators

ADEC will continue to sponsor operator certification training.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

ADEC will use the results of the prioritization matrix as a baseline of TMF capacity. The Department will set a baseline for the 50 priority systems and for any system that voluntarily requests a capacity evaluation.

ADEC will measure improvements by reviewing compliance trends on a statewide basis and by comparing annual numbers of sanitary survey deficiencies, emergency calls for TA, systems on the SNC

list, training events and the attendance at the training events, and systems with properly certified operators.

E. §1420(c)(2)(E): Identification of Stakeholders

ADEC conducted an extensive mailing to solicit interest in serving on the CAB. ADEC contacted federal, State, City, and local government officials; water and wastewater system representatives; TA providers; environmental, housing, and health associations; and Tribal consortium representatives. The final Board members represented a broad cross-section of interests, knowledge, and points of view.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The Alaska strategy, when taken as a whole, will identify the particular needs of systems in the State and address those needs using available resources. Over the next two years, ADEC will finalize a matrix that will help to prioritize systems, provide a baseline of TMF capacity against which system improvements can be measured, and provide information on assistance needs. The Department is working with the NRWA to modify the matrix into a system self-assessment and working with other partners to modify existing sanitary survey forms. Due to funding and staffing limitations, the State has chosen to emphasize and modify already existing programs.

IV. Implementing the Strategy and Evaluating Progress

ADEC was unable to present the draft strategy to the CAB or to the public since the deadline for submitting the strategy coincided with the closing of the construction season. ADEC was planning to present the draft strategy at training conferences, workshops, and meetings during the last few months of 2000.

When ADEC prepares its 2002 Report to the Governor required under the SDWA, it will evaluate the possibility of expanding the strategy to include other CAB recommendations.

Arizona

I. Solicitation and Consideration of Public Comments

The Arizona Department of Environmental Quality (ADEQ) formed a stakeholders group to solicit comments on a draft of their capacity development strategy. The Department also held a series of public/stakeholder meetings in various locations around the State. ADEQ advertised these meetings through Statewide press releases, mailings, and personal invitations. Copies of the draft strategy were made available on ADEQ's Web site before the meetings.

Stakeholders and the public discussed issues including water conservation, consumer confidence reports, current training activities, implementing a new approach to PWS plans for anticipated growth, improving interagency communication, encouraging system consolidation, improving access to data, providing additional technical and managerial assistance for monitoring, rate case procedures, and backflow prevention activities. The Department plans to incorporate comments as appropriate.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

To create a detailed inventory of PWSs, the Department plans to implement *Survey 2000*. *Survey 2000* will assess TMF capacity of PWSs by asking systems to describe their storage, distribution, and treatment; training programs; system organizational structure; management skills; system revenues; capital improvement funds; financing programs; and rate structures.

Until *Survey 2000* can be implemented, ADEQ will divide the inventory of PWSs in the State into four categories: PWSs serving more than 10,000 persons, PWSs serving 10,000 or less persons, State and federal PWSs, and TNCWSs. PWSs within each category will be sorted by:

- Source type (a system with a surface water source is a higher priority than one with a ground water source).
- System type (CWS are a higher priority than NTNCWS which, in turn, are a higher priority than TNCWS).
- Population served (the lower the population the higher the priority).

To further prioritize systems within each category, ADEQ will examine information in the Arizona Safe Drinking Water database (SWD) including:

- Compliance violation data and enforcement actions (the more current and previous violations the higher the priority).
- Water Infrastructure Finance Authority (WIFA) priority listing (systems already receiving financial assistance may be a lower priority for ADEQ).
- Sanitary survey results.
- Operator certification (systems without a certified operator and systems without an on-site operator may be a higher priority).
- Source water (SW) assessments to identify vulnerable or sensitive aquifers.
- Owner type (i.e. municipality vs. trust vs. corporation vs. sole proprietor, etc.).

- Annual financial reports.
- Consecutive source information (identifies those systems that obtain all of their water from another PWS and therefore do little or no sampling).

SWD allows users to make relational queries and save and export information that will aid in the identification and prioritization process.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

ADEQ developed a list of several factors that enhance the capacity of PWSs in Arizona. Enhancements include TA programs; the monitoring assistance program; and e-schedules, an electronic reporting initiative, as well as other Web-based information access activities.

The Department also identified 10 factors that impair capacity. Stakeholders and ADEQ determined that three of these impairments (complexity of the SDWA, regulatory obstacles, and lack of access to compliance information and monitoring schedules) can be addressed in the initial implementation of the strategy.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

ADEQ provides funding to several industry associations and consulting engineers. These groups provide services such as rule training and operator certification training. In an effort to improve the TA process and avoid duplication of effort, the Department plans to coordinate meetings among these groups.

The Department plans to work closely with small systems to prepare them for revisions to MCLs and other new regulatory requirements. ADEQ will expand its on-line services to include monitoring schedules, CCR data, operator certification expiration dates, lists of contaminants for SW approval, and approved analytical laboratories. By posting this information on its Website, ADEQ will improve access to compliance and monitoring information. The Department also plans to improve its public outreach activities to better inform owners and operators of regulatory changes.

2. Encouraging the Development of Partnerships Between PWSs

ADEQ plans to coordinate with stakeholder groups to encourage and develop a mentor program where large and complex PWSs would provide pro bono managerial and technical support to small systems in neighboring locales. The incentives to participate may include earning continuing education hours for mentoring activities.

3. Assisting PWSs with the Training and Certification of Operators

The Department is in the process of developing new, more flexible, operator certification rules which will allow third parties to administer the training and testing portions of the operator certification program. ADEQ expects this new approach will increase training and testing opportunities.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Arizona plans to establish a baseline using either 1998 or 1999 data. Possible approaches for measuring improvements include:

- Measuring the number of outreach activities, sanitary surveys and comprehensive performance evaluations, and completed system self-assessments.
- Assessing the prevalence of certified operators.
- Examining the results of self-assessments, water system plans, annual financial reports, or budgeting worksheets.
- Analyzing compliance trends.
- Conducting written surveys including the annual *Survey 2000*.

E. §1420(c)(2)(E): Identification of Stakeholders

ADEQ developed a list of interested stakeholders including TA providers, State Departments, local associations, PWS owners and operators, and the public. The Department used the list to invite interested parties to a series of meetings. Invitations to the meeting were also distributed in newspaper announcements and mailings ensuring a wide variety of opinions and views would be represented.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Arizona's Capacity Development strategy for Existing Public Water Systems is a comprehensive strategy that incorporates a process to identify and prioritize systems that pose the most significant threat to public health and which are most in need of assistance. The Department is also planning to implement new programs that will help systems comply, encourage partnerships, and improve the operator certification process.

IV. Implementing the Strategy and Evaluating Progress

The ADEQ implementation schedule runs from March of 2000 to August of 2001. After submitting the strategy to EPA for final review in August 2000, ADEQ plans to focus on mailing *Survey 2000*. This tool will enable the Department to develop a preliminary prioritization list, establish baseline parameters, and develop and conduct a comprehensive assessment of PWSs. The Department has started working on several tasks identified in the strategy including developing a means to measure improvements, prioritizing systems, and understanding DWSRF funding mechanisms.

ADEQ regularly participates in a variety of conference calls with State and federal officials to discuss capacity development issues. These calls allow ADEQ to evaluate the progress of implementing the strategy and provide a forum for discussing program changes.

Arkansas

I. Solicitation and Consideration of Public Comments

The Arkansas Department of Health (ADH) formed a stakeholders group and held workgroup meetings to gather input on the SDWA §1420 elements and to develop a draft capacity development strategy. During the first stakeholder meeting, the larger group split into smaller input sessions to focus attention on different elements of the strategy. Participants rotated within these groups to ensure a cross-section of ideas.

During a second meeting, stakeholders were invited to comment on a draft of the strategy developed by ADH after consideration of the comments gathered at the meeting. The stakeholders discussed several elements of the strategy, including the prioritization list, assistance with compliance, partnering and training, measures of success, and future stakeholder involvement.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

ADH evaluates the technical/operational and financial/managerial aspects of small CWSs (systems serving less than 10,000) and NTNCWSs. Water systems are ranked according to a point system related to various components of capacity including: MCL or Treatment Technique (TT) violations within the last 2 years (10 points for each violation), presence of a properly certified operator (20 points if the system does not have an operator), the type of system (0 points for groundwater, 5 points for GUDI, and 8 points for surface water systems), and loan repayment history (20 points for systems determined by Arkansas Soil and Water Conservation Commission (ASWCC) to be financially weak, 40 points for systems determined to be financially very weak).

Systems receiving the highest combined score after each evaluation are considered to pose the most serious threat to public health. In FY 2000 points ranged from 10-138 for technical and operational evaluations, and from 10-168 for financial and managerial evaluations.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

ADH and stakeholders determined 10 factors which enhance capacity and 14 factors which impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Department, among other things, conducts sanitary surveys (on CWSs and NTNCWSs) and comprehensive performance evaluations (CPEs) (on surface water systems), reviews project plans, and provides TA and operator training. ADH is participating with EPA in the Area Wide Optimization Program to optimize performance at all surface water treatment plants. ADH uses the results of sanitary

surveys and CPEs to address system deficiencies. The results may also be used to initiate enforcement action if appropriate.

ADH uses DWSRF set-aside funds for several small system TA projects and State program management activities. The Department has entered into two TA contracts: *Small Systems (10,000 population) TA Contract for Technical and Operation Capacity Development* with the Arkansas Rural Water Association (ARWA), and a *Small Systems TA Contract for Financial and Managerial Capacity Development* with the Community Resource Group (CRG). Each contractor conducts on-site assessments, according to the priority list established by ADH under Element A, on forms provided by ADH. The contractors use their on-site assessments to prepare a strategy to address system deficiencies. Follow-up is provided through site visits and telephone calls.

The Department is currently being restructured. Plans are to have the State divided into 5 regions that operate more or less autonomously under agreements with a Central Office. At the time the strategy was submitted to EPA, State representatives did not know the impact of restructuring on the State Drinking Water Program.

2. Encouraging the Development of Partnerships Between PWSs

ADH is currently using an incentive based approach to encourage regionalization, consolidation, and interconnection. Systems with source water quality or quantity issues that choose to consolidate will receive additional points on the State's DWSRF priority list.

3. Assisting PWSs with the Training and Certification of Operators

ADH recently revamped their operator certification examination and the exam process. The new exams are standardized, computer graded, multiple-choice, and closed book. All operators are required to obtain 24 hours of training every two years in order to renew their licence. ADH also hired a Licensing Training Coordinator who will organize and coordinate operator certification training programs around the State, offer a greater number of training programs, and aim training at both treatment operation and distribution system operation.

ADH works with ARWA to provide training for water operators at various locations around the State. ARWA built a training facility that provides both classroom and hands-on training for water system operators. Two large auditorium-style classrooms and two smaller classrooms will be eventually supplemented by the construction of a model distribution system.

ADH will use a portion of the 5% set-aside for DWSRF Local Assistance and other State Programs to fund contracts that will identify operator training needs, develop training courses, and conduct training sessions.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

ADH will establish a baseline against which they will measure improvements by reviewing current compliance levels. The Department will measure success by comparing future compliance levels for a specific regulation or set of regulations against the baseline.

ADH will also consider, as other measures of improvements, compliance rates of those systems receiving TA under the Small Systems TA contracts; the compliance rates of those systems that have had a capacity review against systems that have not had a complete review; attendance rates at American Waterworks & Water Environmental Association (AWW&WEA) meetings; and trends in number of TA contracts, long-range plans, and systems receiving infrastructure funding.

Each contractor is required to develop an Access database to track baseline information and facilitate the collection of information for measuring improvements.

E. §1420(c)(2)(E): Identification of Stakeholders

ADH sent invitations to participate on the stakeholders group to members that appeared on the membership lists of various water industry related organizations and planning groups including industry associations, TA providers, public and private water system owners and operators, consulting engineers, political groups, planning and development districts, and several State regulators. The Department also contacted interested parties and notified the public about the meetings through announcements made at the AWW&WEA meetings, in newsletters, and in mailings.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

ADH has developed and adopted criteria for ranking PWSs in the State to better prioritize systems in need of assistance. By assigning point values to systems meeting certain criteria, ADH can ensure that TA is given to the systems that pose the most significant threat to public health. The State provides programs and activities which help systems stay in compliance, provides incentives for partnerships and system consolidation, and has made changes to their operator certification program.

IV. Implementing the Strategy and Evaluating Progress

Future stakeholder meetings are planned on a semi-annual basis to continually gather information and input on the implementation of the strategy. ADH will consider additional programs and activities as resources allow, including providing TA for the development of the required long-range plan, increasing the number of CPEs conducted, conducting topic specific training if the results of the sanitary surveys or CPEs show a deficiency that commonly occurs among systems, and increasing the type of materials provided through the Department's Website.

California

I. Solicitation and Consideration of Public Comments

The California capacity development program will be implemented by the Department of Health Services (DHS) and local primacy agencies under delegation agreements with the State.[1] The Department established a Technical Advisory Committee and conducted five workshops during the summer 2000 in order to give the public an opportunity to comment on a draft of the strategy. In addition, the Department posted the draft strategy on its Website. The Department considered and responded to all comments from the public workshops and the Internet. Responses were included in the strategy documents submitted to EPA.

The Department intends to conduct focus groups in 2001 and to provide other opportunities to inform the public and seek comment.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The Department will use five sources of information to identify and prioritize systems in need of assistance:

- Data on water system violations (repeat violators are given a higher priority).
- Information from water system inspections (those systems with the most significant deficiencies are given a higher priority).
- The State Revolving Fund priority list.
- Knowledge of the drinking water program staff.

The Department developed criteria to evaluate the TMF capacity of systems. The Department based the criteria on the criteria used to evaluate the TMF capacity of DWSRF applicants, and also incorporated input from stakeholders.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Department evaluated its drinking water program in 1993. The report from that evaluation identified six factors that contribute to high rates of noncompliance for small water systems: financial and technical limitations, regulatory program issues, planning and permitting issues, operation and maintenance issues, outreach programs, and regional solution issues for small water systems. The Department will update and revise the report by June 30, 2001.

[1]References to the "Department" in the strategy refer to both DHS and the local agencies.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

In order to improve compliance, the Department will incorporate TMF capacity issues in the following program activities: permit issuance, sanitary surveys, compliance monitoring and enforcement, and source water protection. The Department will provide guidance aimed at improving operational procedures and developing system Operations Plans. The Department will use its entire DWSRF set-aside ($2.0 million annually) to fund these activities. During 2001 and 2002, the State will provide training on implementing the revised permit procedures.

The Department is revising its Staff Permit Policy and Procedure Manual in order to ensure that effective and uniform permit policies and procedures are followed Statewide. In early 2001, the State will provide training on implementing the revised permit procedures. The Department has established the issuance of the water supply permit as the control point in implementing TMF requirements.

Enforcement actions are used to require water systems to improve TMF capacity in areas related to their violations.

2. Encouraging the Development of Partnerships Between PWSs

The Department does not explicitly discuss how it will encourage the development of partnerships in its strategy.

3. Assisting PWSs with the Training and Certification of Operators

State regulations requiring certification of distribution system operators will take effect January 2001. The Department will continue to implement its operator certification program.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Department will establish a baseline and measure improvements to system capacity by using the following information:

- Water system violation data will be compared from year to year and the Department will identify important factors and trends.
- Results of a survey (tracked over the next 5 years) to determine the current number of certified operators and their level of certification.
- The number of Operations Plans developed each year. The Department will analyze the number and type of violations by system that have prepared operations plans and compare them to the number and type of violations by systems that do not have a plan.
- A report by a Technical Advisory Committee that identifies and quantifies the level of TA that is provided.
- The number of TMF capacity assessments completed each year.

E. §1420(c)(2)(E): Identification of Stakeholders

The Department formed a Technical Advisory Committee with representatives from PWSs, various State and Local agencies and TA providers.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The chosen elements provide a comprehensive method of identifying systems in need of TMF assistance, providing targeted assistance to the identified systems, ensuring the appropriate level of operator certification, and evaluating water systems progress.

The Department will continue to receive input from its Technical Advisory Committee. It will also conduct focus groups in 2001 and continue to use its Web site to provide information to and receive feedback from the public on its capacity development activities.

IV. Implementing the Strategy and Evaluating Progress

The Department is preparing a Program Implementation Plan that will be designed to meet the three broad goals of the Capacity Development Program and will solicit stakeholder comment on the Plan.

Colorado

I. Solicitation and Consideration of Public Comments

The Colorado Department of Public Health and Environment (CDPH&E) held a series of public meetings to inform the public and interested stakeholders about capacity development issues and to solicit public comment on a draft of their capacity development strategy. The Department also formed a Capacity Development Workgroup, to provide input into the development and implementation of the State's Capacity Development program and to review and provide comments on the draft strategy. The Workgroup will continue to work with CDPH&E during the initial implementation of the strategy. In addition, CDPH&E held two training courses to educate water system managers and operators, engineers, local officials and other interested parties on capacity development issues and to solicit comment on the strategy. CDPH&E also posted the strategy on the Internet.

The draft strategy was favorably received and therefore CDPH&E did not receive very many comments. The Department incorporated the comments made by the Department of Local Affairs and the Rural Community Assistance Corporation into the final strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

CDPH&E will identify systems in need of assistance by:

- Using the results of the self monitoring program to detect systems with violations.
- Conducting site visits.
- Reviewing requests for assistance made by systems.
- Using validated customer complaints.

During the State's next fiscal year, systems with monitoring violations will be the State's highest priority. CDPH&E will recommend enforcement action against those systems with MCL or TT violations unless TA will provide a more timely response and resolution to the threat to public health. The Capacity Development Workgroup working in conjunction with the CDPH&E Capacity Development Coordinator will recommend a prioritization plan, as well as a way to revise the priority setting process.

The Department has also targeted CWSs using surface water as a source of supply that are failing to provide a minimum of three log removal of particulate matter. CDPH&E will perform CPEs to identify the causes of the inadequate performance and to recommend cost-effective methods of correcting the problems.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

CDPH&E identified 7 factors that encourage capacity development in PWSs. The Department categorized the 7 factors that impair capacity into legislative, operator certification, and regulatory issues.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Capacity Development program includes programs and activities that will identify, provide a response to, and prevent capacity weaknesses. Many interrelated activities will be pursued, including:

- TA. CDPH&E staff and approved third party providers will provide targeted assistance to systems. Programs and activities include:
  - Conducting annual on-site sanitary surveys of NCWSs through an agreement with the Consumer Protection Division.
  - Contacting by telephone or in person all PWSs that fail to conduct required monitoring.
  - Developing a RFP for a qualified third party to conduct CPE's of identified surface water systems (i.e. those failing to provide a minimum of three log removal of particulate matter).
- Training.
- Dissemination of information. The Department plans to provide greater access to information through the Internet by establishing a Colorado drinking water hotline, and by investigating the feasibility of providing a web-based training program for water system operators.

2. Encouraging the Development of Partnerships Between PWSs

CDPH&E is looking into ways of encouraging partnerships between PWSs. The Department will ask its strategy work group to develop a water system excellence program (similar to the AWWA/EPA partnership program). TA providers are being asked for information on consolidation, restructuring, shared staffing arrangements, rate structure, budgeting etc., in an effort to provide systems with methods of lowering costs by sharing or partnering with other systems.

3. Assisting PWSs with the Training and Certification of Operators

The Colorado Plant Operators Certification Board (the Board) is in the process of developing regulations to implement the SDWA operator certification requirements. Following the approval of the regulations, CDPH&E will work with the Board to improve the certification process including validating test content, improving test administration, and providing training for existing certification requirements. The Department is working to remove redundancy from training materials provided by the State and its third party providers, and to improve the passing rate of test applicants by ensuring access to information.

The Department may fund an FTE position to support the development and delivery of training programs.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

CDPH&E will use the rate of noncompliance established by Colorado's 1998 Annual Compliance Report as the baseline against which improvements will be measured.

CDPH&E will use a number of different approaches to track the effectiveness of the capacity development strategy including:

- Comparing annual compliance rates.
- Comparing the annual number of sanitary surveys or other on-site evaluations conducted using capacity development funds.
- Measuring the effectiveness of on-site TA.
- Examining changes in SNC rates.
- Examining the compliance rates of new systems that were subject to the program for ensuring capacity in new CWSs and new NTNCWSs, and comparing them to the compliance rates of systems that commenced operation prior to the implementation of the program.

E. §1420(c)(2)(E): Identification of Stakeholders

CDPH&E formed a Workgroup during the summer of 1998 to help develop the capacity development program. The participants were drawn from a broad array of organizations and associations, and from other Divisions within the CDPH&E. While interest and participation in the Workgroup waned over time, the current Workgroup members include representatives from federal, State, and local government; the Colorado Rural Water Association; and the Colorado Rural Community Assistance Corporation.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

CDPH&E will provide TA to the systems identified as having the greatest need based on a review of compliance rates. The type of TA and the choice of the TA provider will be targeted to meet the specific needs of the system. CDPH&E is also increasing the type and frequency of its training opportunities for system managers and operators. The training will ensure that systems who come into compliance have the knowledge and resources that will allow them to remain in compliance.

IV. Implementing the Strategy and Evaluating Progress

The State's Capacity Development Work plan for the State fiscal year 2001 provides detailed information on the activities and programs that CDPH&E is hoping to implement in the next year.

The Workgroup will meet monthly to evaluate and provide recommendations to CDPH&E on the success of the strategy. The Workgroup has been asked to develop a plan for the solicitation of additional public input on the strategy. Changes will be made to the strategy as appropriate.

In the future, CDPH&E will enter into agreements with TA providers, other agencies, and engineering companies to carry out the existing work plan and the strategy.

Connecticut

I. Solicitation and Consideration of Public Comments

The State of Connecticut began its capacity development efforts (called "viability" by the State) in the early 1980's. In 1982, the Connecticut legislature created a Water Resources Task Force to evaluate the State's water supply issues and recommend improvements in the management of water resources. The Task Force included: legislators, utilities, and State agencies. The outputs of this early process form the core of Connecticut's capacity development program. These outputs were developed over many years and each was subject to public participation.

Beginning in 1999, the Water Supplies Section (WSS) of the Department of Public Health (DPH) provided several opportunities for the public to comment on a draft of the capacity development strategy. These included a public "seminar" to introduce and discuss the strategy, and contracts with five TA providers to educate and solicit comments from their constituencies (Council of Small Towns, American Water Works Association, Connecticut/Rhode Island Rural Water Association, mid-Atlantic Rural Water Association, and University of Connecticut Health Center). DPH considered comments from these various sources when finalizing the strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

WSS identifies systems with potential problems by reviewing compliance status, sanitary survey information, inspections, or consumer complaints.

In 1997, DPH worked with the Department of Public Utility Control (DPUC) to develop a viability model for CWSs (except municipal systems). The model has two parts: a technical evaluation and a financial analysis. The technical evaluation measures system performance (focusing on regulatory factors) and ability to comply. The financial analysis includes a review of a system's cash flow, financial leverage, earnings performance, and interest obligation protection. The model provides formulas for the evaluator and establishes ranges of performance depending on the results of the formula. For example, the model provides formulas so the evaluator can calculate total operating cash flow and total debt service. The model then leads the evaluator through the process of determining an appropriate ratio and compares the result to a range of performance (e.g. if the result is greater than 1.2, the company is in a good position to meet its debt obligations after paying expenses, a result of 1.0-1.2 is marginal – a company can adequately cover its obligations but may not be able to cover infrastructure needs or capital improvements, and a result of less than 1.0 is poor). The financial and technical results of the evaluation provide a comprehensive view of a system's capacity.

Connecticut developed separate strategies for non-community water systems including criteria for the prioritization of NTNCWSs and TNCWSs. NTNCWSs are generally a higher priority than TNCWSs.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

Based on public input, DPH developed seven tables of factors that encourage or impair capacity development. For each of the three elements of capacity development (TMF) there are two tables: one for factors that encourage capacity and one for factors that impair it. Each factor in the table is rated as having a high, medium, or low impact on CWSs, NTNCWSs, and TNCWSs. The seventh table is a list of "overriding factors that encourage or impair capacity development."

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Connecticut's comprehensive program is aimed at improving compliance. The State conducts sanitary surveys; runs the operator certification, cross connection control, and watershed protection programs; and controls transfers of land by water companies. DPH surveys water quality data on an ongoing basis.

Under statutes enacted in 1984 and 1985, Connecticut instituted several mechanisms that will be used to implement the State's capacity development program including:

- The Certificate of Public Convenience and Necessity requires a new or expanding water system serving between 25 and 1,000 people to obtain a permit and provide assurances of TMF capacity.
- Six statutes give the State authority to order a solvent water company or municipality to take over a non-viable small water company. PWSs that consistently fail to achieve compliance may become targets.
- The Connecticut Plan requires systems serving more than 1,000 people to periodically develop individual water supply plans. These plans help to identify TMF capacity deficiencies. The Plan also establishes regional Water Utility Coordinating Committees (WUCCs) that develop regional water supply plans.

2. Encouraging the Development of Partnerships Between PWSs

Both the WUCCs and the takeover process result in regional solutions to drinking water problems. Each WUCC develops a coordinated regional plan with input that addresses long-range water supply issues and establishes exclusive service areas in which a utility accepts responsibility for all services. This reduces the demand for new, potentially non-viable small systems.

The takeover process, which is used as a last resort, is a forced means of consolidating or regionalizing small systems, in order to ensure TMF capacity.

3. Assisting PWSs with the Training and Certification of Operators

Connecticut has had authority to establish water system operator qualifications since 1937. In order to comply with the 1996 SDWA Amendments, Connecticut is revising its regulations. The new regulations will require NTNC water systems to have certified water operators.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DPH believes that the "convention of 'counting' items as a success indicator is often naively applied to determining the quality of a risk reduction program." The Department has used, and currently uses, a number of program elements to provide relative measurements of capacity improvements including, for example:

- The total number of PWSs (reflects takeover and consolidation measures).
- The percentage of PWS types with MCL violations (prioritizes resources among system types).
- The percentage of PWSs with monitoring and reporting violations (indicates familiarity with regulatory requirements).
- The results of tracking significant non-compliers (identifies number and type of long-term non-compliers).

In addition, to evaluate its capacity development efforts, DPH will use information from the Annual Compliance Report, Annual Organic Chemical Report to the Legislature, Quarterly Enforcement Activity Report, and Quarterly SWAP Report. The State notes that the indicators it uses to measure improvements in the capacity of systems may change as the program changes.

E. §1420(c)(2)(E): Identification of Stakeholders

DPH has two full-time staff people dedicated to public participation and outreach activities. They have a master list of individuals, groups, and organizations in five categories: government officials, water industry and affiliated enterprises, environmental groups, academia and the general public, and public health professionals. WSS draws from this list for its outreach efforts. WSS has an extensive program of routine, ongoing outreach and public involvement in developing and implementing elements of the capacity development strategy.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Connecticut has a comprehensive capacity development program that addresses the elements of SDWA §1420(c) and includes other elements that predate the requirements of SDWA. Connecticut's strategy includes mechanisms to identify and prioritize water systems with TMF capacity problems; provide TA or other means to improve capacity or eliminate non-viable systems; ensure public involvement; measure improvements in system capacity; and make revisions to the program based on public input and system needs.

IV. Implementing the Strategy and Evaluating Progress

Connecticut began implementing its strategy in the 1980's. The program has evolved and expanded since then. DPH is using more than $300,000 from the DWSRF set-asides to provide TA to small water systems. DPH is also evaluating the use of the DWSRF local set-aside in order to implement additional elements of its capacity development strategy.

Delaware

I. Solicitation and Consideration of Public Comments

In preparing its Capacity Development strategy, the Delaware Public Health Office of Drinking Water (ODW) solicited and considered public comment on all program elements. ODW formed an internal committee of four individuals to gather ideas and draft a Capacity Development strategy. ODW introduced the draft, which focused on strengthening existing programs and offering "new avenues of assistance for water systems," to a representative group of owner/operators. ODW also presented the draft strategy in February 2000 at the Delaware Rural Water Association (DRWA) annual conference, which was open to water systems and the public. Finally, ODW held an informational meeting on May 25, 2000 to present the strategy to additional stakeholders. Attendees included water system owners and operators, the Public Service Commission, DRWA staff, the Department of Natural Resources and Environmental Control, Delaware Health and Social Services, and one member of the public. ODW incorporated comments as appropriate.

ODW also ran a pilot program to test the baseline setting methodology (see Element D). ODW sent six water systems a self-assessment questionnaire and existing compliance data. During an on-site visit each system provided feedback on the questionnaire and the strategy. ODW received positive feedback in all cases.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

ODW will review the compliance history of all PWSs to identify systems in need of assistance. The Office will examine sanitary surveys, complaint history, and operator status information, and will rank systems within prioritization levels based on this information. The type and scope of assistance will correlate to the prioritization level.

- Priority level 1: systems demonstrating significant non-compliance.
- Priority level 2: systems with 1 or more violations in the past 3 years.
- Priority level 3: systems maintaining compliance, but at risk of becoming non-compliant in the future.
- Priority level 4: systems demonstrating full compliance.

ODW anticipates that level 2 and 3 systems will be offered primarily "preventative programs."

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

ODW identified 6 factors that encourage the development and maintenance of capacity in PWSs, including DWSRF financial assistance, operator certification and training programs, and DRWA services (e.g., circuit rider program and training seminars). In addition, ODW mentions that systems benefit from the State authority, which discourages the proliferation of new, potentially non-compliant PWSs.

Institutional policies also protect the State from water shortages and industrial or septic system contamination.

ODW identifies 6 factors that impair capacity, including those that hinder consolidation, discourage participation, and lead to insufficient owner/operator knowledge. Improper land use, political rivalry between municipalities, and the time and red tape involved for receiving a DWSRF loan are also identified as impairments. In addition, ODW mentions that many water suppliers lack expertise and do not trust State and EPA officials, and that interconnection and consolidation of systems are discouraged through Certificates of Public Convenience and Necessity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

ODW continues to implement activities and programs that assist systems with meeting applicable standards and requirements, including sanitary surveys, TA, plan reviews, monitoring, and the ODW contract with DRWA that assists DWSRF applicants deficient in capacity. ODW will also develop and implement two new activities that will further assist systems: the ODW quarterly newsletter sent to every PWS in State, and the ODW Web site.

2. Encouraging the Development of Partnerships Between PWSs

ODW chooses not to develop a partnership program at this time since the State's small area encourages systems to partner on an informal basis. Other partnership and consolidation programs are available through American Water Works Association and other organizations. A more formal program may be considered in the future.

3. Assisting PWSs with the Training and Certification of Operators

ODW continues to implement programs to assist systems in the training and certification of operators such as the State's mandate for operator certification, an ODW contract with Delaware Technical Community College to provide operator training classes, and DWRA training and continuing education. ODW plans to develop operator certification programs and activities since the State mandate for certification is new.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

ODW will use existing information, a self-assessment questionnaire, and site visits to establish a baseline and to measure improvements in the capacity of systems. ODW will create a baseline utilizing its prioritization scheme (described in Element A). Level 1-3 systems will receive a self-assessment questionnaire which will be followed up with a site visit. This two step process allows ODW to customize TA to the particular circumstances of the system. ODW staff provide much of the assistance, although contracts and other agencies will be called upon when necessary, especially for managerial and financial assistance. The systems in prioritization levels 1-3 will be reexamined in 2002 to review their prioritization level and measure any improvement in capacity.

E. §1420(c)(2)(E): Identification of Stakeholders

ODW introduced a draft of the Capacity Development strategy to a group of 8 individuals representing a cross section of stakeholders: 2 mobile home park owners, 1 town manager, 2 municipal water system operators, 1 NTNC manager, and 2 representatives of investor owned utilities (combined, the two private utilities owned or operated 100 systems in Delaware). ODW's strategy did not include a discussion of the process used to establish this stakeholder group.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Delaware's Capacity Development strategy pulls together several aspects of its PWS program that had been previously unconnected. ODW plans to implement several new initiatives that will further assist systems. ODW identifies and prioritizes systems in need of TMF assistance by conducting a review of water system compliance histories and other indicators (sanitary surveys, complaint histories, and operator status). Self-assessment questionnaires and on-site visits establish baselines and track improvements in capacity.

IV. Implementing the Strategy and Evaluating Progress

Delaware's strategy will be implemented primarily by ODW, with assistance from outside contractors or other State agencies if necessary. Each year ODW will provide documentation to EPA that shows the ongoing implementation of the Capacity Development strategy. ODW does not indicate a time schedule for implementing the new initiatives described in the strategy document.

Florida

I. Solicitation and Consideration of Public Comments

Florida's Department of Environmental Protection (DEP) solicited public comment on its capacity development strategy through mass mailings, citizens advisory group meetings, and public meetings. The State considered the comments and responded to them in the final strategy document. Comments were evaluated based on their feasibility, the cost- and time-effectiveness of implementing the suggestion, how often the comment was mentioned, and the position of the individual making the comment.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

From March 2000 through December 2000, FACA and DEP, in cooperation with FRWA, worked to identify systems in need of assistance. FACA used median household income data, population data, violation data from SDWIS, Consumer Confidence Reports, and other information to identify systems with potential or actual compliance problems. DEP currently uses sanitary survey and PWS database information as well as citizen complaints and self-referrals to identify additional candidates for assistance.

DEP frequently screens the identified systems to eliminate those systems that have the resources to resolve their problems. DEP periodically updates a report listing all the significant noncompliers* and systems with other types of "indicator" problems, as listed in the strategy program description. DEP maintains a list of systems actively participating in the technical assistance program and systems identified but not participating in the technical assistance, (e.g. declined to receive assistance, system already has resources to meet it's needs.) DEP periodically discusses the report with FRWA and prioritizes offers of technical assistance (TA). Systems with a history of acute health risk violations are the top priority.

*Significant noncompliers (SNCs) are defined as systems with compliance problems. They may not meet the EPA definition of SNC.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DEP identified six factors that impair capacity development and will aim to address these factors in the implementation of the strategy.

- Different requirements relating to drinking water systems from different agencies.
- Population density.
- Per capita Income.
- Large number of smalls systems in the State.

- Difficulty in following some requirements.
- Drinking water systems can be started up with relatively few requirements.

FACA will use three of the impairments (population density, per capita income, and the size of the system) as additional criteria that will help identify systems in need of assistance.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Florida plans to offer assistance to as many identified systems as possible. If a system accepts the offer of TA, FRWA will perform a thorough assessment of the system's TMF capacity and will then provide consulting services. FRWA has equipment to assist or lend to systems, including computerized leak detectors, ultrasonic flow and meter testers, pressure recorders, etc.

This assistance will supplement Florida's existing efforts which include inspections, individual and group training on consumer confidence reports and other topics, data management, monitoring assistance and waivers, financial assistance to restore or replace contaminated sources, a program focusing on systems using ground water under the influence of surface water (the UDI program), and several other initiatives. For information on Florida's monitoring relief program, see http://www.dep.State.fl.us/water/wf/dw/dw_interest_mrp.htm. For information on Florida's UDI program, see http://www.dep.State.fl.us/water/wf/dw/dw_interest_udi.htm.

2. Encouraging the Development of Partnerships Between PWSs

To encourage partnerships among systems, DEP plans to refer systems to networks of water system professionals, such as the American Water Works Association and FRWA.

3. Assisting PWSs with the Training and Certification of Operators

DEP's Operator Certification Program (OCP) trains and licenses operators. To aid in curriculum development, representatives of FRWA, the Department of Education, the Florida Water Pollution Control Operators Association (FWPCOA), and the Department of Health periodically provide suggestions for additional training topics that need to be emphasized in courses and exams. Beginning on March 1, 2001, new continuing education requirements for operators are in effect.

DEP is continuing to gather information on the possibility of providing board member/municipal manager training to Florida water systems. SERCAP plans to provide board member training in the near future in Florida through a grant from Mississippi State University.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DEP will establish a baseline of system capacity using compliance and violations records, sanitary survey information, and FACA records of responses to self-evaluation and assessment surveys. DEP will measure improvements in overall capacity by tracking changes in the baseline, evaluating public

comment, examining the number of training sessions and the number of attendees at the sessions, and other information that may indicate improvement.

E. §1420(c)(2)(E): Identification of Stakeholders

Florida relied mainly on mass mailings, a citizens' advisory group, and public meetings to identify interested stakeholders. The Department's mailing list includes approximately 400 utilities, consultants, governmental professionals, and others. Mass mailings sent out in 1999 included descriptions of the capacity development program, announcements of public meetings, and requests for comments.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Florida's capacity development strategy will allow the State to identify and prioritize systems that can benefit most from existing programs, from the State's partnerships with TA providers, and from the additional assistance that will be offered by FRWA and FACA. The strategy provides a thorough approach for reaching systems that do not have adequate capacity and for helping these systems resolve their problems.

IV. Implementing the Strategy and Evaluating Progress

DEP is already implementing most of the programs described in its strategy, and FACA has completed the identifications, needs surveys, self evaluations and draft corrective action plans for 50 systems. As the capacity assistance efforts move forward, DEP will track the progress of systems and modify the assistance as necessary to maximize improvements in capacity. DEP will work to ensure that assistance is balanced between public and private systems. New continuing education requirements for operator certification became effective March 1, 2001.

Georgia

I. Solicitation and Consideration of Public Comments

The Georgia Water Management Campaign (the Campaign) and the Georgia Department of Natural Resources Environmental Protection Division (EPD) assembled a Local Government Advisory Board (the Board) to advise them on capacity development issues. The Board, consisting of 21 local officials, met five times prior to the development of the draft strategy and submitted comments to EPD for review. The Campaign also established a Private System Work Group made up of 36 individuals. This group met six times between September 1998 and April 1999 and submitted comments to EPD. EPD also solicited comments at the Georgia Resources Leadership Summit, another Campaign event, in April 1998.

In 2000, EPD held three statewide capacity development stakeholder meetings which were attended by a total of 22 individuals. The list of invitees included governmental agencies, trade and professional organizations, environmental advisory groups, health departments, Rural Development Centers, TA providers, and concerned citizens.

In an effort to receive input from the general public, EPD published notices of capacity development rule amendment public hearings in statewide newspapers.

Comments that EPD received through the forums described above are either listed under Element B of Georgia's strategy ("Factors that Encourage or Impair Capacity Development"), or were specifically addressed in Section 3.4 of the strategy ("Solicitation and Consideration of Public Input").

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

To identify and prioritize PWSs that are most in need of improving TMF capacity, Georgia will consider the following information:

- Compliance Records. Systems with MCL violations, treatment technique violations, or monitoring and reporting violations will be given high priority.
- Sanitary Surveys and Inspections. The number, type, and severity of deficiencies that are found during the sanitary surveys and inspections will be used to identify and prioritize systems in need of improving TMF capacity.
- Complaints. A computerized complaint tracking system for all EPD environmental programs, including drinking water, is currently being piloted in EPD's Southeast Region Office. Once completed and distributed to all branches, the tracking system will be used to identify systems with multiple complaints.

Systems impacted by new regulations and systems requesting assistance will also be given special attention.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

Georgia considered factors identified by the Local Government Advisory Board, the Private System Work Group, and stakeholders that attended statewide capacity development stakeholder meetings. Twelve factors that impair capacity development were listed in the strategy document. Many of these factors point to the unique challenges faced by Georgia's large number of small, privately owned systems (e.g., their ineligibility for DWSRF funds), as well as the need to educate and involve local governments that manage and operate water systems. Under Section 3.4, Georgia identified factors that encourage capacity development, including enforcement, construction inspections, operator certification, public outreach and training.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

In addition to existing efforts to identify and resolve compliance problems, including engineering plan reviews, sanitary surveys, and formal and informal enforcement actions, EPD has undertaken the following assistance initiatives:

- Business Plan and Operation and Maintenance Plan Guidance. In May 2000, EPD's "Minimum Standards for Public Water Systems" were revised to include technical guidance for the development of a Business Plan and Operation and Maintenance Plan. These plans are required both for new systems and for existing systems that are changing ownership.
- TA visits. Using DWSRF set-aside funds, EPD has contracted with the Georgia Rural Water Association (GRWA) to provide a minimum of 625 circuit-rider type TA visits each year. Ten percent of these visits will be provided within 48 hours of notification by EPD in order to quickly address problems posing an immediate threat to public health.
- Monitoring assistance. Under an optional "Drinking Water Service Contract," EPD also provides water systems with the laboratory and related services necessary for the system to comply with monitoring requirements. Systems pay a fee based on their service population, the type of source water, and the number of entry points.
- Consumer Confidence Report (CCR). Using DWSRF set-aside funds, EPD has established a three-year contract with the Georgia Water and Pollution Control Agency (GWPCA) to assist PWSs in completing their CCRs. GWPCA has developed a guidance and preparation manual for the CCR.
- Local Government Initiatives. The Campaign, established by a three-party contract between EPD, the Georgia Environmental Facilities Authority, and the Association County Commissioners of Georgia, completed a service delivery guidance for local governments. The guidance helps local governments identify, analyze, and implement comprehensive water management strategies; and describes alternative service delivery strategies such as privatization, contract operation, satellite management or shared services, consolidation or regionalization, and private water system takeover/acquisition. The Campaign also completed a guidance document for governments working with privately owned CWSs and 16 case studies highlighting intergovernmental cooperation and service delivery arrangements for drinking water and wastewater services. The case studies are published on the web at www.accg.org.

2. Encouraging the Development of Partnerships Between PWSs

- Peer Review Program. Participating water systems complete a comprehensive self-assessment to identify deficiencies. A peer review team, made up of volunteers with a range of expertise in water system management and operations, conducts an on-site evaluation of the system. Upon completion of the evaluation, the team presents their results and recommendations for improvements to the management of the system. All activities and reports are confidential.
- Source Water Assessment and Delineation. Using DWSRF set-aside funds, EPD is currently providing assistance to large surface water systems to delineate or assess their source water protection areas. In some cases, water systems are forming regional partnerships and delegating a lead partner to complete a comprehensive assessment of the source water protection area affecting all of the systems.
- Local Government Initiatives (see above).

3. Assisting PWSs with the Training and Certification of Operators

Using DWSRF set-aside funds, EPD has subsidized operator training conducted by the Georgia Water and Wastewater Institute (GWWI). GWRA also provides specialized operator training through funding provided by the State legislature.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

EPD will use the following information and methods to establish a baseline and measure improvements.

- Compliance Data. EPD generates an annual report on water system violations and will use it to identify important factors and trends. Initial compliance rates for new regulations will also be analyzed and tracked by EPD.
- Operator Certification/Training Data. EPD will determine the current number of certified operators and track the number of operators seeking re-certification, the number of new operators, the number of operators attending training, and the number of hours of training provided. EPD will work with the State Board of Examiners for Water and Wastewater Operators and Laboratory Analysts, GRWA, and GWWI to gather this information.
- TA Information. As a measure of success, EPD will report data on the number and type of TA visits provided to PWSs by GRWA.
- Consolidation of PWSs. EPD will track the number of water systems that are inactivated because of consolidation with other water systems.

E. §1420(c)(2)(E): Identification of Stakeholders

Stakeholders were identified through the Georgia Water Management Campaign, the Private System Work Group, EPD's official mailing list for drinking water and water withdrawals, EPA-sponsored capacity development trainings in May 1999 and February 2000, a review of organizations participating on other water resources or management programs, and discussions with other primacy agencies.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Georgia has implemented a number of TA programs to improve existing water system capacity, ranging from operator training, to monitoring assistance, to CCR preparation. Georgia launched several initiatives to specifically address privately owned systems and systems managed by local governments. To provide additional services to these systems, EPD has partnered with TA organizations and taken advantage of DWSRF set-aside funds.

IV. Implementing the Strategy and Evaluating Progress

EPD's capacity development assistance initiatives are ongoing. As the program moves forward, the Division will track multiple sources of information related to capacity development (e.g., operator certification, TA visits, etc.) to determine the success of the program.

Hawaii

I. Solicitation and Consideration of Public Comments

The Safe Drinking Water Branch (SDWB) of the Hawaii Department of Health (DOH) held stakeholder meetings with organizations deemed to have an interest in the capacity development strategy. SDWB also obtained input from the interested public, organizations, agencies, and water system customers. SDWB widely publicized the capacity development strategy through public notices and mailings.

SDWB presented the a draft of the strategy at public meetings held on four of the five major islands and also accepted written comments. Very few comments were received. The State made minor revisions and sent the revised strategy to water system purveyors and to any other person or organization that commented on the draft.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

Initially, the State will select five systems it believes are most in need of assistance, based on compliance histories, sanitary survey findings, and recommendations from local sanitarians. SDWB will select one system from each major island.

These systems will be asked to provide information through a system self-assessment. The assessment, called *Evaluating Capacity of Existing Public Water Systems*, asks a series of questions on the TMF capacity of the system. A system's answers are assigned points based on a comparison to a hypothetical existing system that meets the TMF requirements. The fewer the points, the higher the priority. Systems are either graded as "satisfactory" or "needs assistance."

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

Hawaii identified the following factors as encouraging capacity development: State public notification requirements; Consumer Confidence Reports; potential liability; and system education through sanitary surveys. The State did not identify any factors that impair capacity development.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Of the water systems that are graded as "needs assistance" in accordance with the State's identification and prioritization scheme, five will be asked to determine the underlying causes for inadequate capacity and to provide an improvement plan. SDWB will work with each system to assist with capacity improvement efforts. SDWB will further evaluate the selected systems to determine whether State Revolving Fund (SRF) assistance would be beneficial in ensuring compliance.

2. Encouraging the Development of Partnerships Between PWSs

SDWB will, on a case-by-case basis, arrange for a system needing assistance to meet with one that has adequate capacity. The meetings will provide the struggling system with a first-hand look at how capacity can be achieved and maintained. SDWB will also encourage large water systems to invite staff from small systems to attend their training. SDWB will continue to sponsor educational workshops that not only instruct, but give water system operators a chance to interact and develop working relationships.

3. Assisting PWSs with the Training and Certification of Operators

SDWB will arrange for other organizations, such as the State Waste Water Operator Training Center, to conduct training. SDWB will also assist the State Operator Certification Board in implementing the operator certification program.

In addition, SDWB is will hire a contractor to provide professional development and training courses in 1999 and 2000 for water treatment plant and distribution system operators, and utility managers. The courses will be offered free of charge on each of the major islands.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Each system completing the *Evaluating Capacity of Existing Public Water Systems* will earn numerical points, based on a degree of compliance as compared to the hypothetical water system. The sum of the points is the baseline against which SDWB will measure improvements. SDWB will compare the sum of the points earned during a re-evaluation to the baseline number.

E. §1420(c)(2)(E): Identification of Stakeholders

SDWB established and met with a stakeholder group with representatives from the following entities: Land Use Research Foundation, Hawaii Association of Realtors, Rural Community Assistance Corporation, AWWA Small Water Systems, Maui Land and Pineapple Company, American Savings Bank, West Hawaii Water Company, and Campbell Estates. Other interested parties were encouraged to attend public meetings or submit written comments.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

SDWB established a process to identify, evaluate, and improve the performance of specific water systems lacking adequate TMF capacity. This process requires SDWB to identify systems needing assistance and then evaluate them against criteria the State has developed to identify areas of weakness. SDWB and the water system will then prepare a plan to correct the causes identified for the inadequate capacity, including an SRF loan, if appropriate. After the plan is implemented, SDWB will make periodic site visits and will re-evaluate the system against the criteria to determine whether the system has achieved adequate TMF capacity. The State also intends to generally improve water system performance through training offered to all treatment and distribution system operators and utility managers.

IV. Implementing the Strategy and Evaluating Progress

SDWB has already developed the attributes of the hypothetical system that will be used to evaluate water system capacity.

The Rural Community Assistance Corporation (RCAC) to has just completed a contract with the SDWB to provide the manager training on utility management and the distribution system operator training during 1999 and 2000. A follow-up training contract will be implemented to provide a professional development training program for managers, water treatment operators and distribution system operators over the next three years (2001 through 2004).

The SDWB has selected a consultant to work with the SDWB and the five selected water systems to determine each system's TMF capacity weaknesses, and determine the cause for the capacity problems, and provide the assistance needed to attain capacity. The consultant will be working with the SDWB and the water systems over the next two years (2001 through 2003). The lessons learned and the generic products generated will then be applied to other water systems.

Progress will be evaluated by a consultant comparing the system's performance against the capacity attributes for a hypothetical system with adequate TMF capacity. Periodic progress reports will be provided to the water system management and the SDWB.

The SDWB will revise or adjust the capacity development program to make the program more effective as the need for revisions are identified.

Idaho

I. Solicitation and Consideration of Public Comments

In April 1998, the Idaho Division of Environmental Quality (IDEQ) convened a Citizens Advisory Committee (CAC) to advise the Division on the development and implementation of a capacity development program. The CAC developed a *Report of Findings* which included their conclusions and recommendations regarding the SDWA §1420(c)(2) elements.

To solicit additional public comment, IDEQ posted the *Report* on the Internet, published advertisements in the State's major newspapers that provided instructions on how to obtain a copy of the report, and issued press releases. The *Report of Findings* was also discussed at a series of public workshops held in six cities around the State.

The CAC provided responses to the comments that were received in response to the *Report*. IDEQ provided responses to questions or concerns raised during a question and answer period at each of the public workshops.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

IDEQ will examine the compliance records for all the PWSs to identify systems in need of assistance. A hierarchy of violation types, based on public risk, will be used to assign systems into "critical" and "serious" categories. The critical category includes those violations associated with immediate health risks such as microbial contamination or a positive coliform sample. A serious problem is one that poses a potential health risk but may not require immediate action such as chemical MCL or monitoring and reporting violations.

Once the systems are identified and assigned a category, they will be ranked according to population size. The Division will consider the systems' willingness to cooperate with the State's assistance efforts and may not provide assistance to those systems that refuse to engage in a partnership with the State and its TA providers. IDEQ will also provide assistance to any system that asks.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The CAC identified 61 factors that enhance capacity and 74 factors that impair it. The Committee provided 16 recommendations for programmatic changes that would address some of these impairments.

IDEQ staff reviewed all of the factors and agreed with most of the Committee's conclusions. The Division chose to focus on 8 of the recommendations during the initial implementation of the strategy. IDEQ will consider implementing the other recommendations if resources and circumstances allow.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

IDEQ will:

- Enhance its routine sanitary surveys to include an examination of additional managerial and technical information.
- Develop an easy-to-use tool (self-assessment) for systems that would help them identify deficiencies and provide information on existing assistance programs and activities.
- Develop a business planning handbook that will provide information on long-term planning.
- Provide training on financial issues including long-term capital replacement plans.
- Enhance its efforts to provide water systems with early notification of regulatory changes.
- Provide training to IDEQ staff and consultants on capacity issues.

2. Encouraging the Development of Partnerships Between PWSs

The Division plans on including information on partnerships and other cooperative arrangements in its training programs and educational materials.

3. Assisting PWSs with the Training and Certification of Operators

IDEQ will continue to provide operator certification training.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

IDEQ will track compliance trends on a statewide basis through its report on systems with a history of non-compliance and an SNC exceptions report. Systems who receive assistance under the capacity development strategy may be asked to complete a survey regarding the effectiveness of the assistance. IDEQ will also examine annual compliance reports, the numbers of operators who become certified, and the TMF assessments performed for DWSRF loan applicants.

IDEQ will tally the number of sanitary surveys, the number of capacity related site visits, and the number of water systems that complete a self-assessment. IDEQ does not provide information on how these numbers will be used.

IDEQ may periodically survey systems to determine the number of systems engaging in long-term planning (financial and capital infrastructure) and self-assessment activities. An increase in the number of systems that are conducting this planning will indicate improvements in system capacity and the success of the State's capacity development strategy.

E. §1420(c)(2)(E): Identification of Stakeholders

IDEQ invited public drinking water systems, utility councils, local government organizations, cities, child care facilities, public health organizations, financial organizations and associations, well drillers, and a number of other groups that might have had an interest in capacity development issues to participate on the CAC. IDEQ's administrator selected 17 members to serve on the Committee. A

number of other individuals voluntarily attended the Committee meetings.

The CAC identified other organizations and associations and attempted to solicit their involvement. Additional Committee members were added based on this list and some non-appointed participants attended and participated in the Committee meetings.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

IDEQ has developed a strategy that focuses attention on: systems with compliance problems, systems that are willing to cooperate and implement changes that will have public health benefits, and regulatory programs that will address the factors that impair water system capacity in Idaho. IDEQ will monitor both system improvements and program implementation success by tracking overall compliance trends in the State. Many of the strategy's activities will be funded by the State's DWSRF capitalization grant set-aside.

IV. Implementing the Strategy and Evaluating Progress

Due to a staffing shortage, IDEQ plans on seeking proposals from suitable service providers for the development and delivery of learning tools and training programs. The Division has proposed setting aside 5% of its DWSRF capitalization grant for these purposes for the next 3 years.

IDEQ has developed an implementation schedule that offers a general idea of when and how the eight recommendations will be implemented. The schedule has IDEQ preparing specifications and RFPs by 2001. All of the products and programs are targeted to be implemented no later than 2002.

IDEQ will evaluate the possibility of expanding its strategy by adopting additional recommendations made by the CAC. The Drinking Water Advisory Committee, a permanent standing committee of IDEQ, will be consulted on these and other issues during the initial implementation of the strategy.

Illinois

I. Solicitation and Consideration of Public Comments

The Illinois EPA (IEPA), Bureau of Water (BOW), Division of Public Water Supplies, is responsible for developing and implementing the capacity development strategy for CWSs. BOW coordinated with several existing drinking water advisory committees to develop a list of stakeholders, who were invited to participate in a meeting to discuss the basic approach of the capacity development strategy. BOW also invited the public to the annual Bureau of Water Program Plan Hearing. The Bureau made a series of presentations but did not receive any comments. BOW received additional comments on the draft of the strategy, including the need for self evaluations, peer evaluations, and TA opportunities during two AWWA Emergency Response/Capacity Development Demonstration workshops. BOW incorporated comments from this meeting into a draft of the strategy.

The Illinois Department of Public Health (IDPH) is responsible for developing the NCWS strategy. In order to solicit comment on the draft of the NCWS strategy the Department established an advisory committee to address capacity development and operator certification issues. Comments and suggestions were incorporated into the draft as appropriate.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

To prioritize systems in need of TMF assistance, BOW will categorize water systems into three groups: priority one supplies, priority two supplies, and priority three supplies. The Bureau will identify and evaluate systems using compliance data. Systems in noncompliance are priority one systems and will be addressed first. These systems will be required to enter into a compliance agreement which will require the system to demonstrate adequate capacity. Priority one systems may be subject to formal enforcement action.

Priority two supplies include systems which do not display adequate technical capacity, are approaching 70%-80% capacity of treatment plant production and serving a growing population, or have inadequate storage, distribution pressure problems, or recurring water quality problems. These systems will be identified by using engineering evaluations and site visits. Priority two systems are possibly non compliers and may be subject to formal enforcement action.

Priority three will be required to complete a Capacity Development Screening Survey. BOW's Field Operations Staff (FOS) will review the completed survey during a scheduled engineering evaluation. The criteria FOS will use to evaluate systems includes changes in management or ownership, reductions in operations staff, failure to submit operational reports and construction permits, increasing operational problems, resource shortages, and a perceived inability to maintain compliance.

IDPH plans to use the CWS priority classification system described above to identify and prioritize NCWSs. Priority one supplies will be identified and evaluated by an examination of MCL violations and

significant constructional or operational deficiencies. These supplies, like their CWS counterparts, will be required to enter into a compliance agreement and may be subject to formal enforcement action. IDPH will identify priority two systems by reviewing monitoring records during sanitary surveys. These systems may be referred for formal enforcement action. Finally, priority three supplies are those with minor TMF deficiencies which will be identified during routine sanitary surveys.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Bureau identified nine factors that impair capacity and eight that encourage it. Of the identified impairments, the most significant obstacles are related to public education, operator and management constraints, and the regulatory process. In order to reduce the number of impairments affecting systems, the Bureau, and specifically the FOS, plan to continue providing TA and public education programs on a variety of topics including managerial and regulatory requirements.

IDPH identified three factors that impair, and two factors that enhance, the capacity of NCWSs.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Bureau will continue working with systems on compliance related activities including: providing TA to PWSs in an effort to identify solutions, reviewing permit applications and accompanying documents for systems that are expanding, and performing sanitary surveys. The Bureau has also adopted an internal enforcement process to ensure that proper notification is sent to all systems in violation and that enforcement actions are taken if violations are not corrected within a reasonable amount of time.

As a result of the public participation process that helped to develop the strategy, BOW plans to work with AWWA to develop a self-evaluation tool for systems. The self-evaluation will help systems prepare for their engineering reviews.

IDPH has adopted federal SDWA requirements by reference and has adopted an internal enforcement process similar to BOW's.

2. Encouraging the Development of Partnerships Between PWSs

The strategy does not mention a plan to encourage partnerships between PWSs.

3. Assisting PWSs with the Training and Certification of Operators

Illinois has had an operator certification program since 1965. A law that allowed very small systems to operate under the direction of a responsible person was repealed. Operators are required to secure continuing education units in order to review their certificates of competency. IEPA and the Illinois Department of Public Health will continue to provide a variety of educational workshops, symposia, and seminars to keep operators abreast of technical and regulatory changes.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Bureau will use compliance and operations data to set a baseline from which they will measure improvements in capacity. Using engineering evaluations and the pre-screening survey, the Bureau will assess: whether the system has recurrent violations, the system's ability to handle problems and emergencies, the quality of CCR, and operational problems. These factors will be tracked from year to year. BOW will also use monitoring and reporting violations data as part of the assessment of the capacity development program's success.

IDPH plans to use data on MCL and monitoring violations, timely submission of sampling data, and employment of reliable certified operators to measure improvements. Progress will be based on comparing existing compliance information to information collected in future years.

E. §1420(c)(2)(E): Identification of Stakeholders

BOW and AWWA contacted small system operators, operator association officials, water education institution staff, State EPA staff, consulting engineers, and IL Rural Water Association Staff (RWA) staff who are members of existing advisory committees. BOW also made presentations at a series of association conferences, AWWA workshops, and RWA meetings in order to present the draft of the strategy to a wide variety of stakeholders.

In order to solicit public comment from other interested parties, the Bureau mailed meeting announcements for the Annual BOW Program Plan Hearing to citizen, environmental, industrial, commercial, and institutional stakeholders groups. Other official capacity development notifications were sent to consumers and published on the Illinois Website.

IDPH established an Advisory Committee which consisted of industry, State, local, and public participants.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Illinois' capacity development strategy is a comprehensive tool that will enable the BOW and IDPH to improve the overall TMF capacity of PWSs throughout the State. The prioritization process will enable the BOW and IDPH to identify those systems most in need of TMF assistance, and provide them with the resources to improve TMF capacity. BOW plans to continue providing public education, TA, and outreach to water systems and consumers to mitigate capacity impairments and is improving the compliance and operator certification programs in the State. Finally, the BOW and IDPH used stakeholder comments to help develop the strategy which ensures that system and customer needs will be met.

IV. Implementing the Strategy and Evaluating Progress

In response to public participation, the Bureau will work with AWWA staff to develop a comprehensive system self-assessment tool, which will be used in conjunction with engineering inspections and site visits. Systems can also use this tool to identify and correct deficiencies.

Within the next few years, BOW is planning to hire and train additional FOS staff whose primary responsibility will be to track and follow up on complaints, review new rules, review operation visit information, and track water supplier responses to evaluation report letters. The staff will work within the regional office to facilitate capacity development activities and disseminate information to other regional staff on capacity development issues.

Indiana

I. Solicitation and Consideration of Public Comments

The Indiana Department of Environmental Management (IDEM) created both internal and external stakeholder groups to participate in meetings on the capacity development strategy. The internal group created a draft strategy and invited comments from the external group. A total of six meetings were held for external stakeholders. Early meetings focused on the development of specific elements in the strategy while later meetings focused on refining the draft. Each of the five program elements were addressed during the stakeholder meetings.

A draft of the strategy was presented at several water association conferences and regional meetings and copies were available at various conferences around the State.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

SDWA §1420(c)(2)(A) is the focus of the State's strategy. The Department will use existing compliance data maintained in the State's databases along with the following information to conduct an initial screen:

- Complaints.
- Operator certification.
- O & M problems.
- Sanitary surveys.
- Early warning orders or connection bans.
- Other data including Indiana Utility regulatory Commission (IURC) accounting data, State Budget Agency data, and tax data.
- Field inspector input.

After the screening, IDEM will determine whether a system is "at risk," "at marginal risk," or "at low risk." At risk systems (i.e. systems having very little, if any, TMF capacity) will undergo a thorough evaluation by IDEM staff or a contractor and will receive TA based on the specific needs of the system. At risk systems will be further prioritized by source (systems using surface water and ground water under the direct influence of surface water are high priority), system type (CWSs and NCWSs with susceptible populations are high priority), and population data (systems serving fewer than 10,000 are high priority).

Marginal risk systems (those that do not have adequate capacity to maintain operation over the long-term) will be asked to complete a self-assessment that will help determine TMF capacity deficiencies. Low risk systems (those that may not meet one or more of the screening criteria but have adequate capacity) will be continually evaluated through the screening process to ensure that changes in the system's TMF capacity are quickly detected and the system is reclassified as a marginal or high risk system. While the timing, type, and level of assistance may vary because of the priority of classification, IDEM plans on assisting all system regardless of risk classification by directing them to a variety of resources.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

IDEM and the stakeholder groups identified several factors that enhance and impair capacity. Part of IDEM's long-range approach is to utilize the tools found to encourage capacity and make improvements to them as needed. The Department will also attempt to eliminate or reduce the impact of the factors found to impair capacity including: lack of operator certification opportunities, the cost of implementing regulations, staffing shortages, and the complexity of the sampling program.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Once a system agrees to participate in a capacity building effort, IDEM already provides several programs and initiatives to assist system with compliance. In an effort to further improve compliance rates the Department may provide on-site TA, develop an IDEM Drinking Water Manual, provide regional small system TA workshops, establish a toll-free drinking water hotline, develop a Website pertaining to water system operations, and implement Indiana's source water assessment plan. IDEM will also develop a Comprehensive Evaluation/Self-Assessment form.

2. Encouraging the Development of Partnerships Between PWSs

IDEM may develop a program that will require, or encourage, the consolidation of systems incapable of maintaining adequate capacity. The Department is considering having PWSs that have successfully mitigated similar issues provide TA to problem systems, and providing them with mentoring opportunities.

3. Assisting PWSs with the Training and Certification of Operators

IDEM offers a 12 week preparation course to those planning to take the operator certification exam; a one day refresher course to anyone planning on updating their certification; and coordinates with other water associations to suggest and approve programs for continuing education credit.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

IDEM will use compliance data, sanitary surveys, operator certification information, the number of systems associated with professional water organizations, the number of systems that have received training, their monthly report of operations data, enforcement figures, IURC figures, wellhead protection data, complaints, and system data such as outages and boil water notices, to establish a baseline and to measure improvements. The Department does not mention the time line it will use to measure improvements.

E. §1420(c)(2)(E): Identification of Stakeholders

IDEM gathered stakeholders together from both inside and outside the agency to create two stakeholders groups. The "internal group" consisted of members from IDEM's Drinking Water Branch, while the "external group" included the internal group plus members from other State agencies, law firms, water

systems, and water agencies. IDEM mailed meeting announcements and notes to various State agencies, water associations, activist groups, county and local health departments, consultants, public water supplies, and other interested stakeholders.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The Indiana capacity development strategy for existing PWSs will enable systems to improve overall TMF capacity. IDEM developed a prioritization scheme that will identify systems with immediate needs (high risk), systems with some needs or a potential need (marginal risk), and systems with relatively low need (low risk). Once systems are identified, they will be directed to various existing IDEM resources which will be supplemented by several new initiatives developed in response to stakeholder discussions.

IV. Implementing the Strategy and Evaluating Progress

The initial emphasis will be on prioritizing and ranking systems in need of improved TMF capacity. Long-term goals of the strategy include identifying the factors that focus on improving capacity, proposing solutions or methods to mitigate the problems, and directing the appropriate resources to improve or eliminate the factors that impair capacity. IDEM will continue to work with the internal stakeholders group to evaluate progress and develop additional programs and activities as resources allow.

Iowa

I. Solicitation and Consideration of Public Comments

The Iowa Department of Natural Resources (IDNR) formed a Viability Assessment Advisory Group (VAAG), a which includes both members of IDNR's SDWA Advisory Group and a range of other stakeholders, to get input on developing its capacity development program. VAAG met monthly for ten months and produced a *Report of Findings on Improving the Technical, Financial and Managerial Capacity of Iowa's Public Water Systems*. The meetings were facilitated by the Environmental Finance Center at Boise State University.

In addition to the input from this group, IDNR solicited broader public input. The Department held three public meetings where it presented the *Report of Findings*. The meetings were widely advertised in the press and a notice was sent to each PWS in Iowa. IDNR awarded Continuing Education Units (CEUs) to certified operators and engineers for their attendance at public meetings. IDNR received verbal, written, and e-mail comments. Comments and IDNR's responses were included in the strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

VAAG developed a decision model to identify and prioritize systems in need of TMF assistance. The model leads the reviewer through a series of questions to determine the type of system including:

- A system that is out of compliance and has a critical problem (acute health risk).
- A system that is out of compliance and has a serious problem (chronic non-acute health risk).
- A system that is out of compliance and has a minor problem (sporadic or one-time violation).
- A system that is in compliance but has potential problems.
- A system that is in compliance but voluntarily requesting assistance.

IDNR will perform a TMF analysis and provide TA for those "problem" systems that are willing to work with the Department. IDNR will take enforcement action against any system that has a "problem" and is unwilling to rectify the situation.

IDNR will use the model to rank and prioritize assistance needs at the end of each calendar quarter.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The VAAG identified 25 factors that enhance capacity development. Included in this list were recent changes to Iowa's tax code that provide assistance to investor-owned utilities, allow tax exempt bonds to finance municipal infrastructure projects, and provide exemptions from State sales and property taxes to publicly-owned and rural water systems.

VAAG identified 56 impairments to capacity development. These included legal factors such as the lack of land use regulations and the pending urban sprawl legislation, and financial factors such as State

auditing requirements for DWSRF loan recipients. VAAG identified regulatory impairments such as lack of understanding of the regulations at the local level and inconsistency of State enforcement.

VAAG analyzed the enhancements and impairments and developed eight recommendations for how the State and TA providers could help water systems improve their capacity. VAAG also provided suggestions for the actions that IDNR or others could take to implement the recommendation.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

IDNR Rules require systems applying for DWSRF loan funds, SNCs, "problem" systems, and systems without a certified operator to submit a viability assessment. The Department also requires systems experiencing TMF deficiencies (identified during a sanitary survey), to complete an assessment. IDNR reviews and evaluates the assessment and provides a list of corrective actions. On-site inspections will be completed on an as-needed basis, to help the system implement the required improvements. Failure to take corrective actions may result in the revocation or denial of the system's operation permit.

New initiatives under the capacity development strategy may include:

- The development of an enhanced sanitary survey to collect additional TMF information. The Department will follow up the sanitary survey with an on-site meeting and will provide the system with a "scorecard" as to the results of the survey.
- Mailing an annual rules status update to all water system operators.
- Making IDNR standard forms for water suppliers available in electronic form.
- Creating a periodic newsletter.
- Preparing an annual report for water systems explaining how annual water supply fees were used by IDNR.
- Assessing EPA grants to examine the possibility of funding public relations and education activities.
- Increase inter-departmental and intra-departmental communications including the possibility of recognizing staff, developing a description of potential linkages among agencies, and increasing communication with other Departments.
- Sponsoring a meeting where capital financing agencies, public finance specialists, and PWS stakeholder groups discuss techniques for financing small PWS improvements.

2. Encouraging the Development of Partnerships Between PWSs

One of the eight recommendations addresses improving partnerships and networking among governmental agencies and water systems. Specifically, IDNR may use the Iowa Communications Network for training sessions or peer review forums targeted to operators, management boards, and city clerks; use the Iowa State University extension service as a source of TA for financial issues; encourage partnerships among TA providers; encourage EPA to work more closely with the U.S. Department of Agriculture in providing funding for water system improvement projects; encourage and assist small systems to develop local cooperative buying agreements; and reimburse partnership activities through the operator certification training program.

3. Assisting PWSs with the Training and Certification of Operators

The second of the eight recommendations is to improve the knowledge of drinking water protection rules among operators (and management personnel). To that end, IDNR may offer CEUs for operator attendance at rule hearings, develop an automatic e-mail service to keep operators updated on regulatory developments, mail an annual regulatory status update to all water system operators, and provide on-site board member training.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

IDNR defined five broad goals, adapted from the State of Texas' Capacity Development strategy Report, each with a series of measures that would indicate the extent to which the goal is being achieved, including:

- Ensuring safe drinking water for all Iowans (measured by the total number of systems in compliance, percentage of population served by systems in compliance, and change in the number of SNCs from year to year).
- Providing funding for system improvements to increase capacity (measured by loan dollars distributed; the number of systems required to improve capacity due to deficiencies noted in the DWSRF process; and a change in the number of DWSRF recipients that showed no enforcement actions or monitoring violations, on-time repayment of the loan, maintenance of a certified operator, and on-time submission of required forms).
- Increased service from IDNR (measured by the number of operator certification and training events, number of on-site inspections, number of systems voluntarily requesting self-assessment manual, etc.).
- Improving overall TMF of water systems (measured by the percentage of systems having a certified operator, returning a consumer confidence report, with monitoring violations, with notice of violation letters, or that must submit additional information for the self-assessment, and the number of systems involved with consolidation or regionalization activities).
- Improving internal interaction (measured by the number of meetings between IDNR cental office and the field offices).

IDNR currently tracks several of the measures to fulfill other reporting requirements and will use existing data to establish a baseline. For the other measures, IDNR will establish a baseline after sufficient data are collected. At the time IDNR prepares its report to the Governor and to EPA, it will rely on some or all of the measures under each goal. It may also add measures if they better define the success of the strategy.

E. §1420(c)(2)(E): Identification of Stakeholders

During the first meeting of the VAAG, the group identified additional stakeholders who were then invited to participate in subsequent meetings. Minutes of each meeting were sent to each identified stakeholder, so that he or she could follow the process and submit comments even if attendance at the meeting was not possible.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

IDNR believes that the elements chosen from those suggested during VAAG's consideration of §1420(c)(2), when taken as a whole, constitute a strategy that will improve the TMF capacity of Iowa's PWS's. The strategy is comprehensive, in that it addresses all five elements in §1420(c)(2) through the existing and new programs and activities, and is directly related to the factors that impair and encourage capacity. The strategy addresses improvements that can be achieved by water system operators, as well as by management boards. The strategy also includes a system for evaluating progress and for continuing to receive feedback from the Advisory Group.

IV. Implementing the Strategy and Evaluating Progress

IDNR is currently implementing certain capacity development provisions for existing systems through regulations in the Iowa Administrative Code. However, the Department may need to revise the Rules in order to fully implement the strategy. Implementation of the Advisory Group's recommendations will begin with the use of the prioritization decision model. During the first year of implementation, IDNR staff will add financial and managerial questions to the sanitary survey protocol. Staff will also implement communications and training activities. Other recommendations will be implemented in the future, as resources and staff allow.

IDNR will collect information for the performance measures. It may reconvene the VAAG prior to preparing the report for the Governor in order to evaluate the success of the strategy and to develop new programs and activities as necessary.

Kansas

I. Solicitation and Consideration of Public Comments

The Kansas Department of Health and Environment (KDHE) convened a Capacity Development Workgroup to advise the Department on how to approach capacity development issues. The Workgroup held eight meetings facilitated by the Environmental Finance Center at Boise State University and prepared a *Report of Findings* which was widely distributed for public comment. KDHE issued a Statewide press release announcing the availability of the *Report* for public comment and made the *Report* available on its Website. In addition, KDHE mailed a copy to all public water systems, held four public meetings, and made a presentation during the March convention of the Kansas Rural Water Association. KDHE received no comments from the public on the *Report*.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The Workgroup recommended, and KDHE adopted, a strategy of using compliance data to identify and prioritize water systems in need of assistance. KDHE will use information it maintains, as well as information from other State agencies, notably the Kansas Water Office (KWO). KWO also has responsibility for assessing water system capacity. KDHE is adopting regulations that will require systems to participate in a survey that will assess the system's TMF capacity.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Workgroup identified 47 enhancements and 72 impairments to capacity development at the Federal, State and local levels.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Initially, KDHE will pursue eight of the 15 recommendations made by the Workgroup, including:

- Pursuing the adoption of regulations requiring participation in a TMF assessment every three years.
- Seeking any additional statutory authority necessary to require water use reports from all water systems.
- Developing a business planning guidebook.
- Water system management and board/council training.
- Determining whether enabling legislation is needed to require the use of water meters or if KDHE or KWO already has the authority.
- Expanding the regulation specific "survival guides" which provide regulatory information in a plain English format.
- Developing a facilities management plan guidance that explains preventative maintenance, equipment replacement schedules, and financial capacity issues.

2. Encouraging the Development of Partnerships Between PWSs

One of the Workgroup's recommendations was to encourage partnerships and communication among agencies and among water systems. KDHE did not specifically adopt this recommendation but believes that this issue is addressed in the *Kansas Water Plan*, the State's official water planning document prepared by KWO. The *Kansas Water Plan* calls for development of a regional public water supply assistance program. KWO will adopt guidelines for developing regional water supply strategies and providing TMF capacity assistance to water suppliers interested in a regional strategy.

In addition, the DWSRF applicants get additional priority points for consolidation plans.

3. Assisting PWSs with the Training and Certification of Operators

KDHE will continue its operator training and certification program. In addition, KDHE will provide training on water system financing, review and improve regulatory guidance material for system operators, prepare a business planning guidebook, and provide training for water system board members.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

To establish a baseline against which it will measure improvements, KDHE will track:

- Compliance rates of individual systems supplemented by information from the KWO survey.
- Outreach and assistance activities.
- The number of water systems engaging in capital planning, business or financial planning, and self-assessment activities.

E. §1420(c)(2)(E): Identification of Stakeholders

The Capacity Development Workgroup included members representing a wide variety of stakeholders including representatives from the Kansas Natural Resource Council; Federal, State, and local government; the Public Health Association; the Kansas Ground Water Association; and business, environmental, consulting, and water industry groups. The Workgroup identified additional organizations that were encouraged to participate. To ensure that a wide variety of stakeholders and interested parties were aware of the strategy's development, KDHE conducted a number of public outreach initiatives including mailing information, posting information on its Web site, and holding public meetings.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

KDHE developed a prioritization scheme which is now based on compliance and will be supplemented with information from the TMF capacity surveys. The recommendations chosen for initial implementation are directly related to the enhancements and impairments identified by the Workgroup. KDHE will use set-asides from the DWSRF to support the program. KDHE will measure individual water system responses to capacity development efforts and will track overall compliance trends within the State. Finally, KDHE has encouraged and will continue to encourage public involvement in the

development and implementation of the strategy.

IV. Implementing the Strategy and Evaluating Progress

TMF surveys will be a key component of the strategy and will help prioritize systems, identify their TMF needs, and provide a baseline against which improvements can be measured. Implementation of the survey requires KDHE to develop a form as well as promulgate regulations. KDHE expects the regulation to be effective in June 2001, with the first surveys due January 2002. Results from the initial surveys will be available in 2002.

KDHE will raise metering issues during the fall meetings of the KWO in order to discuss State statutory amendments. KDHE will issue a contract in the spring of 2001 for an inventory of relevant training. They will follow that with another procurement to develop materials that do not exist or adapt existing materials for use in Kansas.

KDHE will continue to use the Capacity Development Workgroup to provide feedback as the program is implemented. KDHE will also get feedback from others through implementation of the *Kansas Water Plan*.

Kentucky

I. Solicitation and Consideration of Public Comments

In June 1999, the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water (DOW), mailed a notification to stakeholders identifying the five SDWA program elements and requesting comment on them. The notice also included an issue paper on how the State plans to identify and prioritize systems as well as information on three public meetings. DOW sent a schedule of meeting times and meeting locations to over 1,000 organizations and individuals who had requested to be advised of all DOW regulatory activity. A copy of the notification was published in two newspapers, both with Statewide circulation.

Meeting attendees expressed their concerns that a capacity development program managed by DOW would be duplicative of other State programs. DOW responded to these and other comments as they were raised at the meetings, and incorporated them into the capacity development strategy as appropriate. The DOW also received comment on the criteria used for prioritization, and all but two of the criteria received public support. DOW changed the focus of the two criteria in question to correlate with the public comments received.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DOW developed a group of criteria described in the proposed draft regulation, and assigned each one points for use in a formula that will help DOW identify systems that need TMF assistance:

- Systems receiving 25 or more points are referred to a DOW Committee to determine the type and level of TMF assistance needed. The Committee can request additional financial and managerial information, sanitary surveys, inspection reports, information from the field staff, and can apply an "affordability test" to the system's rate structure.
- Systems receiving up to 25 points, and judged by the Committee to be in need of assistance, are referred to the Local Planning Council (LPC). The LPC, created previously by DOW through its Water Supply Planning (WSP) program, helps systems develop a local level capacity development strategy. Systems in need of capacity improvement must include their LPC capacity development strategy in the WSP required 20-year plan, along with timetables and goals for improvement. For more information on the specific elements of the WSP program, see the program's homepage: http://water.nr.State.ky. us/wsp/.
- Systems scoring 50 or more points are "most in need" and will be addressed first.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DOW does not specifically identify factors that encourage the development and maintenance of capacity in PWSs. DOW believes that the established planning process deals effectively with PWSs judged to be in need of improving capacity. DOW identifies many institutional and regulatory factors that impair capacity in the State. Impairments include the time-consuming permit process to use a U.S. Army Corps of Engineers reservoir as a source of supply, as well as local institutional problems (e.g., water district

managing boards and conflicting political agendas), unreasonable monitoring costs, complex regulations, and inconsistent interpretation and enforcement of policies.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DOW uses existing programs such as wellhead protection, source water assessment, rural community assistance, community development block grant, water withdrawal permitting, dental health, and comprehensive TA, to assist systems with meeting NPDWRs. Monitoring requirements, GIS mapping systems, and TA provided by the Kentucky Rural Water Association (KRWA) are additional existing programs that help systems meet capacity standards and regulations. DWSRF set-asides, the U.S. Department of Agriculture's Rural Development program, and loans administered by the Kentucky Infrastructure Authority (KIA) provide financial assistance for capacity development.

The State's Public Service Commission regulates systems and water associations, while 15 Area Development Districts serve as regional planning agencies for local governments. DOW also plans to use the University of Louisville's Environmental Finance Center to offer training sessions that will assist systems with long-term decision making processes.

DOW is considering establishing a "certification program," which would be "a voluntary program whereby PWSs could be affirmatively judged to have TMF capacity for purposes of DWSRF and any other advantages that such certification may afford." The managerial and financial capacity certification program would be developed by third parties, and the DOW would retain its current programs for determining technical capacity.

2. Encouraging the Development of Partnerships Between PWSs

DOW encourages partnerships among PWSs through a Peer Review Program operated by KRWA and the Kentucky Association of Counties. Through a priority formula used for funding proposed projects, DOW encourages systems to achieve economies of scale by merging, creating regional facilities, obtaining adequate quantities of water, and upgrading treatment facilities. KIA's planning mechanisms also encourage regionalization and service to unserved or under served areas of the State. In the future, DOW plans to investigate the business practices of systems, in hopes of facilitating additional mergers and the regionalization of systems.

3. Assisting PWSs with the Training and Certification of Operators

Kentucky's Operator Certification program is an existing activity that assists systems in the training and certification of operators. DOW plans on working with Western Kentucky University's "Small System TA Center," which will develop training for water system managers.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Data from the beginning of 1999 will be used as a baseline. DOW will use the number of SNCs, the number of systems referred to LPCs, the number of improvement plans, and the subsequent carrying out

of those plans, as benchmarks against which the State will measure improvements in system capacity. The number of systems taking part in the capacity certification program, and the improvements made by those systems, will also be used as an indicator of improvements to system capacity.

DOW will consider the loaning of all the DWSRF monies as an indicator of the success of the State's strategy.

E. §1420(c)(2)(E): Identification of Stakeholders

DOW identified its stakeholders by listing all relevant State and federal agencies, local governments, groups or associations that may have an interest in the State's capacity development strategy, county judges, mayors, Area Development Districts, the contact of record for all PWSs, known drinking water consultants in the State, certified laboratories, and environmental and public health groups.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DOW believes that the programs and activities described in response to the five SDWA elements constitute a cohesive strategy to improve the capacity of Kentucky's PWSs since it includes methods to identify systems most in need of capacity, a capacity certification program, a WSP program, use of the DWSRF program to assist systems in attaining and maintaining capacity, the incorporation of other State and federal funding programs, TA offered by KRWA, and the Peer Review Program.

IV. Implementing the Strategy and Evaluating Progress

DOW will implement its strategy with the assistance of State and local agencies, which have the authority and resources to maintain existing programs that address TMF capacity. Kentucky has applied for and received grants to set up a DWSRF to assist the State's water systems with infrastructure needs. DOW does not State when future programs, such as the proposed capacity certification program, will be developed and implemented.

Louisiana

I. Solicitation and Consideration of Public Comments

The Office of Public Health's Drinking Water Revolving Loan Fund Program (DWRLF) solicited public comment through meetings with stakeholders and a number of public water systems and consulting engineers. DWRLF sent letters to State Senators and Representatives inviting them to attend meetings on DWRLF's plan for developing and implementing the strategy. The Program met with the Community Development Block Grant (CDBG) and the Rural Utilities Services (RUS) to discuss the strategy and to reduce redundancy of activities.

The State's strategy provides responses to the concerns of CDBG and RUS.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The DWRLF's first priority will be to address systems with compliance problems including those systems currently under an Administrative Order, SNCs, systems having MCL violations in the previous three years, and systems that have uncorrected deficiencies discovered during a sanitary survey. The State will also prioritize randomly selected systems that are representative of certain system characteristics and service populations.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The strategy lists two factors that encourage capacity (use of set-aside money to provide on-site TA and the statutory authority to develop and implement a Capacity Development strategy) and three factors that impair capacity (lack of funds, insufficient water rates, conflicting requirements among agencies).

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The State currently has entered into five contracts to assist systems with compliance including:

- The Louisiana Compliance Initiative, which provides compliance training schools and on-site TA to systems under Administrative Orders, or about to be, and to systems having MCL or other violations.
- Very Small Water System Training, which provides training on system operation and maintenance to systems serving less than 500 people.
- 16 annual training sessions and two circuit riders who provide on-site TA for systems serving fewer than 10,000 people.
- Management training to educate water system managers on regulations, liabilities, financial management, and operations and management of a water system.
- One-on-one assistance to systems in completing the business plan, rate setting, record keeping, and other capacity development issues.

In addition, the Safe Drinking Water Program completes CPEs on surface water systems. Targeted TA is provided based on the results of the CPE.

2. Encouraging the Development of Partnerships Between PWSs

Applicants for DWRLF monies are given additional points on the State's priority criteria worksheet if the proposed project will consolidate or regionalize existing systems.

3. Assisting PWSs with the Training and Certification of Operators

DWRLF will continue to provide training and certification exams for operators through a contract with Louisiana Rural Water Association. The State may contract to provide additional training resources.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DWRLF will use compliance data to establish a baseline. The State will use a number of factors to determine if the capacity initiatives are working, including:

- Sanitary Surveys. DWRLF will compare yearly surveys to see if the technical capacity of a system has improved.
- Annual updates of the Business Plan. DWRLF will compare the yearly updates to track financial capabilities.
- Operator Certifications. An increase in the number of certified operators will indicate improvement in the capacity of systems.
- Management Training. An increase in the number of people completing a management training course will indicate improvements to capacity.
- On-Site Assistance. DWRLF will examine reports by on-site assistance providers to determine if the assistance was helpful.

E. §1420(c)(2)(E): Identification of Stakeholders

The State identified interested stakeholders based on their relationship with PWS activities. Interested stakeholders included the Public Service Commission, the Louisiana Rural Water Association, the Community Resource Group, CDBG, RUS, legislators, the Department of Environmental Quality, and the Safe Drinking Water Coalition, which is an association of various environmental interest groups.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DWRLF has established a method for identifying and prioritizing systems (compliance data) and means of getting information about systems (the Business Plan). This information will allow the State to target assistance. To ensure the maintenance of capacity, DWRLF is providing training for operators and managers. Ongoing input from stakeholders will provide information on the effectiveness and the progress of the strategy.

IV. Implementing the Strategy and Evaluating Progress

A Business Plan requirement[2] went into effect on September 20, 1998. Through two circuit riders, the State has been providing TA to systems serving fewer than 10,000 people and has entered into a contract for management training sessions. A new contract will provide additional TA focusing on financial and technical issues.

To facilitate ongoing review and evaluation of the strategy, DWRLF will conduct semi-annual stakeholders meetings to discuss capacity development issues and solicit input on how to encourage partnerships among systems. The State will also use these meetings to discuss success stories and "lessons learned" from working with systems.

[2]All existing PWSs are required to submit a Business Plan to DWRLF six months after a visit by a designated State representative who is providing assistance to the PWS.

Maine

I. Solicitation and Consideration of Public Comments

Maine's Drinking Water Program (DWP) used the recommendations of Maine's Capacity Development Citizens Advisory Committee (AC) to develop the State's Capacity Development strategy. The AC, representing a wide range of interests, provided the primary means for public involvement in developing the strategy, and their *Report of Findings* summarizes their conclusions and recommendations.

Maine relied on an "open-forum" approach to public involvement during the development of the strategy. DWP distributed on their Website and in their newsletter all capacity development information including AC meeting times, minutes, and progress reports to an extensive mailing list of relevant parties and interested individuals. The DWP and the AC concluded that providing the information was a more effective way of soliciting public comments since the non-controversial strategy would lead to limited attendance at public meetings.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DWP identifies systems with compliance problems that have potential public health impacts by examining compliance data. Noncompliant systems are divided into one of the four following problem categories:

- Critical: Continued exceedance of an acute health based standard or lack of monitoring for an acute contaminant.
- Serious: Continued exceedance of a non-acute health based standard or lack of monitoring for a non-acute contaminant.
- Minor: Sporadic or one-time exceedance of a health based standard or lack of contaminant monitoring.
- Potential: Problems that may lead to critical or serious problems in the future or circumstances that may culminate in a problem due to tightening of current regulations.

Within each category, DWP ranks systems according to the relative seriousness of the capacity problems and then determines assistance needs through a self-assessment survey, a sanitary survey carried out by the State, or a third party on-site evaluation. If a noncompliant system refuses to engage in a partnership with the DWP and its service providers, that system does not receive assistance and may face further enforcement action. All systems may apply directly to DWP for assistance at any time.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The AC and DWP staff identified 93 factors that enhance capacity and 144 factors that impair capacity. The AC reviewed all identified factors and used a subset of them to recommend new programmatic activities (see Element C) to DWP.

For the final strategy, DWP did not consider any recommendation clearly outside its influence or control. The AC decided to publish a comprehensive list of all the enhancements and impairments in its *Report of Findings* so that during the ongoing evaluation of the State's strategy, additional factors can be addressed as resources allow.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DWP will continue to implement existing programs and activities geared towards assisting systems with compliance such as the Source Water Assessment Program, Consumer Confidence Reports, and SDWIS. These programs and activities will be supplemented by:

- The development of an "enhanced" sanitary survey (i.e., DWP will develop a brief questionnaire for inclusion in the survey process to gather data on the TMF capacity of systems).
- A system self-assessment.
- Training for water system personnel on financial capacity issues.
- A review of water meter regulations to determine if changes are necessary.
- Improvements to the methods for notifying systems of rule changes or new regulatory requirements.
- Expansion or revision of public participation programs and public outreach activities.

2. Encouraging the Development of Partnerships Between PWSs

DWP commits to locating and disseminating independent research which depicts the benefits and shortcomings of consolidation.

3. Assisting PWSs with the Training and Certification of Operators

DWP sponsors operator certification training and will continue to do so. Efforts are underway to provide both training and training cost reimbursement to eligible systems and third party providers. In addition, since current training in the State focuses on a broad array of technical and managerial topics, DWP intends to provide better training to system personnel regarding fiscal capacity and financial management. DWP will help train DWP staff on TMF capacity issues.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DWP will adopt a three-pronged tracking system, as recommended by the AC in their *Report of Findings*. The overall goal of the tracking effort is to assess the strengths and weaknesses of the strategy and provide the basis for future enhancements.

- Tracking of Statewide compliance results and trends. Data will include information from history of noncompliance reports and SNC exceptions reports, as well as TMF self-assessment survey data.
- Tracking of outreach and assistance efforts. Data will include number of "enhanced" sanitary surveys conducted, number of capacity-related site visits, and number of systems that complete self-assessment surveys. Wherever possible, DWP will compare before-assistance and after-assistance results and data.

- Tracking of planning activities. A survey will determine how many systems are engaging in capital planning, other business or financial planning, and self-assessment activities. Statewide trends in the use of planning activities may reflect how well capacity understanding is improving among system personnel.

E. §1420(c)(2)(E): Identification of Stakeholders

The AC represents many different interests in the drinking water industry. During the drafting of their *Report of Findings*, interested parties could join the AC's work at any time, and DWP encouraged the AC to recommend additional interested parties whose perspectives would be beneficial to the strategy's development. The AC's active networking added several members to the AC. Through press releases and Website postings, DWP gave a wide spectrum of interest groups the opportunity to participate in the development of the strategy and kept them advised of the AC's progress.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DWP developed Maine's strategy from the recommendations of the AC and from staff knowledge. Maine's prioritization scheme focuses on system compliance, public health impacts, and willingness to cooperate. The recommendations for future DWP initiatives are a direct result of an analysis of the factors that impair and enhance system capacity in Maine. DWP will use SRF funds to run their assistance program, and DWP will measure improvements by tracking trends in compliance and measuring individual system responses to assistance.

IV. Implementing the Strategy and Evaluating Progress

Besides the "enhanced" sanitary survey (implemented by January 2001), and the self-assessment survey, (in place by July 2001), other new programs and initiatives will be implemented within a reasonable time frame, as determined by DWP. Presently, the DWP employs one permanent staffer to develop all learning tools and training programs included in the strategy. Work done by other DWP staff and other statewide and national organizations will assist with the implementation of the tasks identified in the State's strategy.

DWP will continue to rely on a stakeholder-based process during the implementation and revisions to the strategy. There will be a continuing role for the AC, whose membership will "remain fluid and open by intention." In addition, DWP will remain open to suggestions and recommendations from Maine's regulated community, partners, and citizens.

Maryland

I. Solicitation and Consideration of Public Comments

The Maryland Department of the Environment's (MDE) internal capacity development team solicited and considered public comments throughout the development of the capacity development strategy. A Steering Committee, made up of MDE staff, representatives from various organizations, and individuals from the regulated community, met regularly to develop and discuss the strategy.

During initial strategy development, seven "representative" systems completed and commented on a draft of the Capacity Development self-assessment, which MDE will use to establish a baseline, measure improvements, and rank systems in need of assistance. MDE incorporated the "representative" systems' comments where appropriate, along with recommendations of MDE staff and the Steering Committee.

MDE presented a draft of the strategy at the Maryland Rural Water Association (MRWA) conference held May 2000. MDE also mailed the draft to other organizations, requested comments on the strategy through their Website, and provided information on the strategy and the development process in a newsletter distributed to parties interested in MDE activities.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

Using the baseline information (described in Element D below), MDE will rank the TMF problems of systems statewide, by county, by ownership type, and by other factors. Systems with the most serious and prevalent problems (e.g., systems with major sanitary defects indicated by the sanitary survey results receive a higher priority than systems with minor defects) will be targeted for TA.

MDE will also provide assistance to water systems that request it. MDE supplies training providers with each system's relevant information to ensure individual and specific assistance.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

MDE identified 11 factors that encourage capacity in PWSs, including State emphasis of TA, adequate training opportunities, Comprehensive Performance Evaluations of surface water systems, and MDE policies that encourage consolidation.

MDE identified seven factors that impair capacity, including lack of State and federal funding, limited State staffing and resources, a lack of certified operators, and a lack of operator and manager interest in training. In addition, MDE believes that systems do not know about available resources, small systems are deficient in their maintenance and planning efforts, and the authority of regulating transient systems is delegated to counties who already struggle with resource restraints. MDE identified mechanisms that can be used to address the impairments.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

In order to assist systems with meeting applicable standards and monitoring requirements, MDE will continue to: provide systems with monitoring schedules, sampling and analysis of chemical and radiological MCLs, and water supply financial assistance (both grants and DWSRF low-interest loans); conduct annual sanitary surveys; and perform source water protection assessments.

MDE is also developing a self-assessment survey that will enable systems to identify deficiencies and provide the State with TMF information that will lead to more targeted assistance. If a survey is not returned, MDE will call the system or identify the deficiencies during the sanitary survey. In addition, MDE will begin working with TA providers to assist systems in completing funding applications and provide training, which will enable systems to better defend their requests.

2. Encouraging the Development of Partnerships Between PWSs

To determine the level of system interest in partnership activities, MDE included a question on the self-assessment survey. The results will be used to shape future activities. MDE is also working with American Water Works Association Chesapeake Section to develop a partnership program where system operators can provide training to other operators.

3. Assisting PWSs with the Training and Certification of Operators

MDE classifies facilities according to their treatment technology. Operators must pass a test specific to a treatment technology type, which ensures that operators are technically qualified for the process they are required to operate. Operator certifications must be renewed every three years.

MDE provides grants to the Maryland Center for Environmental Training (MCET) and MRWA to provide TA. Frequent telephone calls, faxes, site visits, mass mailings, seminars, and training courses provide other avenues of disseminating information to operators. Expected changes to State regulations may make it easier for operators to be certified, and MDE will continue to explore and encourage innovative ways of ensuring properly trained and certified operators.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

MDE will establish a baseline and measure improvements through the use of:

- Compliance data. The number, type (which contaminant), and degrees (level of exceedance) will be used to establish a baseline for technical capacity, while the number of monitoring and reporting violations will be used to set a baseline for managerial and financial capacity.
- Operator certification information. MDE will examine the number and classification of certified operators to set a baseline and measure improvements in managerial or financial capacity.
- The number and severity of deficiencies identified during a sanitary survey will be used to establish a baseline and measure improvements.

- The results from the self-assessment questionnaire. MDE will mail the self-assessment to CWSs every six years. The results of the surveys will be compared to measure improvements and to determine additional assistance needs.

E. §1420(c)(2)(E): Identification of Stakeholders

The 17 person Steering Committee included a seven person MDE internal capacity development team, AWWA Chesapeake Section, county health departments, Manufactured Housing Institute, Maryland Rural Water Association, Maryland Center for Environmental Training, University of Maryland Environmental Finance Center, and water system owners. MDE identified additional stakeholders through a mailing list of organizations representing the interests of communities, the general public, State and county governments, and municipalities.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

MDE solicited public comment and incorporated it as appropriate throughout all stages of the strategy's development. Through the establishment of a baseline that examines TMF aspects of a system, training and assistance can be targeted to the systems with the most severe and prevalent compliance problems. Subsequent updates will ensure that improvements are measured and that changes can be made, if necessary.

As a future initiative, MDE will create a ranking system from the self-assessment survey and compliance data, which will further prioritize systems in need of assistance. The State continues to use its current programs to foster compliance, partnerships, and operator training. MDE acknowledges that the strategy's purpose is to use the least amount of resources while providing the greatest amount of capacity development information.

IV. Implementing the Strategy and Evaluating Progress

Using existing authority and resources, MDE provides TA, operator training, and financial assistance to water systems. MDE will establish a baseline by August 2001. The State will update the baseline and measure improvements every three years. The self-assessment survey will be sent out every six years. As evaluation of the strategy continues, changes may be necessary to improve the efficiency of the system-evaluation process.

Massachusetts

I. Solicitation and Consideration of Public Comments

On June 1, 2000, the Massachusetts Department of Environmental Protection (DEP) Drinking Water Program (DWP) staff met with the Safe Drinking Water Advisory Committee to discuss the current status of Capacity Development Program activities and to request comments on a draft of financial and managerial capacity guidelines. The program activities, the financial and managerial guidance materials, and the comments of the Committee are components of the final strategy.

On June 12, 2000, DWP invited a group of stakeholders to participate on the Capacity Stakeholders Committee. The Committee held a "Brainstorming Workshop," and DWP incorporated significant Committee ideas into the State's strategy.

Finally, on June 14, 2000 (and previously on June 20, 1998) the Capacity Development Coordinator convened a Capacity Development Task Force to discuss program updates, program planning, capacity strategies for existing PWSs, and financial and managerial capacity issues, including the draft guidance on financial and managerial capacity. DEP solicited additional public comment by posting the final draft strategy on its Website.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DEP identifies systems in need of TMF assistance through:

- Sanitary Survey/Comprehensive Compliance Evaluation (CCE).
- DWSRF priority systems: DWP reviews all systems seeking DWSRF funding to determine their need for TMF assistance.
- Compliance History.
- Other factors: Source Water Assessment Program Reports, Consumer Confidence Reports, permitting requirements (i.e., Water Management Act permits), Board of Health/State agency/local agency referrals, and consumer or other complaints.
- Change in ownership.

Systems are prioritized based on risk level. Assistance is targeted at systems with the highest public risk, using the following three-tiered prioritization scheme (and factors):

- Direct impact on public health (i.e. orders to boil, do not drink, and/or do not use; and SNC status).
- Indirect impact on public health (failure to report).
- Violation of technical safeguard (e.g. lack of signs in a watershed protective area).

DWP will also determine the appropriate type and level of Technical Assistance by examining all gathered information and taking into account long-term infrastructure needs, new and proposed regulations, and compliance history.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DEP identifies 26 factors that encourage capacity, including stakeholder group meetings, established programs, DWSRF monies, and mentoring networks among small systems. DEP identifies 26 factors that impair capacity, and is currently taking action to minimize the impact of many of the impairments.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

In order to assist PWSs in achieving and maintaining compliance, DEP collects data (i.e. sanitary surveys, source water assessments, DEP reports, and monitoring and compliance reports) to evaluate systems and plan for improvements; provides on-site consultations, financial and managerial capacity guidelines, and a streamlined enforcement process; publishes the "In the Main" newsletter; mails rule updates to all system owners and operators; uses the Internet to publish program components; and circulates the TNC-Small System Handbook. DEP provides technical support to trade associations by writing articles and making presentations at their meetings. The Department also provides outreach to local school communities to increase public awareness. DE also works closely with other State and federal agencies to promote compliance (e.g. Department of Public Health, Plumbing Board, Department of Telecommunications and Energy).

Possible future initiatives include developing a more advanced communications system (e.g., e-mail list server, automated telephone calling, fax on demand) to keep operators updated on rule developments or rule modifications; developing electronic reports of data; and the transfer of lab results.

2. Encouraging the Development of Partnerships Between PWSs

DEP has an agreement with the Massachusetts Coalition for Small System Assistance. The coalition is comprised of New England Water Works, Massachusetts Water Works Association, the Northeast Rural Community Assistance Program, and the Northeast Rural Water Association. The Coalition provides group training, conducts one-on-one site visits, and provides a mentoring program.

3. Assisting PWSs with the Training and Certification of Operators

The State has developed an operator training curriculum based on the "Findings" section of the Sanitary Survey. Updates will be made as necessary. A new initiative is owner board member training, which DWP hopes will increase the managerial capacity of systems.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DEP uses the results of the Sanitary Survey/CCE as the primary means of collecting information to establish a baseline. This information is used as a reference point upon which the State will measure improvements in the system's capacity and compliance status.

Once the CCE is complete, DEP records violations that threaten capacity and develops a Compliance Plan. If significant capacity problems are identified, DEP enters them into the Water Quality Testing

System electronic database. Entering the information creates a Capacity Development Profile for the system. The profile will be used to identify systems that lack capacity and their specific deficiencies.

Once DEP collects and enters data into the WQTS, the system is rated as having: "adequate capacity," "conditional capacity," or "inadequate capacity." Success is measured by toward adequate capacity or continuous capacity.

DEP will measure the overall success of the strategy by tracking the type and frequency of TA (i.e., the number of sanitary surveys or CPEs performed, the amount and type of assistance provided in response to a site-visit). Finally, DEP measures improvement by tracking reductions in compliance and enforcement actions, including a reduction of the number of SNCs.

E. §1420(c)(2)(E): Identification of Stakeholders

DEP invited groups that regulate, service, operate, interact with, or receive water from PWSs; TA providers; regional planners; CWSs; NCWSs; well drillers; boards of health; municipal and State officials; consulting engineers; and housing association representatives to participate in the Capacity Stakeholders Committee. In addition, the Capacity Development Task Force, which met twice during the development of the strategy, included a collection of water supply professionals, accountants, TA providers, utility professionals, and rate analysts.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

In addition to the existing DEP programs designed to improve the TMF capacity of PWSs in the State, DEP's proposed program elements (i.e. a more advanced communications system) will address some of the State impairments to capacity. Through prioritization for assistance, DEP targets systems that present the greatest risk to public health. DEP uses a Sanitary Survey/CCE to establish a baseline and an individual system capacity categorization. DEP records capacity information in the following five year cycle: year one CCE/SS; year three (shortened sanitary survey) coupled with follow-up site visits and enforcement action. This process is used to measure improvements in the activities of the State's capacity development program.

IV. Implementing the Strategy and Evaluating Progress

DEP is already implementing all of the significant programs and activities that make up the capacity development strategy. New programs will be implemented as the need arises and as resources allow. The Department will use the input of the Capacity Development Task Force, the Safe Drinking Water Advisory Committee, and the Capacity Stakeholders Committee to improve the Capacity Development strategy. As DEP implements the capacity program, changes to the State's approach are expected and welcomed.

Michigan

I. Solicitation and Consideration of Public Comments

Michigan Department of Environmental Quality (MDEQ) utilized the experience and expertise of stakeholders from inside and outside the Department to develop, and solicit comments on, a draft of their capacity development strategy. The Department invited representatives from State and local agencies, industry associations, public interest groups, consultants, community associations, water system owners and operators, law firms, contractors, and consulting engineers to participate in a meeting to develop the capacity development strategy. MDEQ gathered input on each of the elements of the strategy during this meeting.

MDEQ presented the same information at a Rural Water Association (RWA) meeting, published information regarding the strategy on the Department's Field Operations Staff (FOS) Web site, and published informational articles in the Michigan chapters of the American Water Works Association (AWWA) and RWA monthly newsletters.

In Michigan, the MDEQ has delegated the implementation of the strategy to 43 local health departments for the NCWS water systems. MDEQ and 43 local health departments developed the NCWS strategy, and solicited input from representatives of NCWS associations and owners groups.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

MDEQ considers this Element to be the key issue in the strategy. The Department plans to screen both CWSs and NCWSs using existing information found in the State's databases and files including compliance information, sanitary survey and evaluation results, construction permit bans/warning letters, O&M problems, and Drinking Water and Radiological Protection Division staff input.

MDEQ will then prioritize CWSs based on the relative seriousness of the system's problems. A hierarchy of violation types based on public health risk has been developed and will be used to assign problems into categories:

- Critical - continued acute exceedance, lack of monitoring, and chronically not in compliance.
- Serious - chronic nonacute exceedance and lack of monitoring.
- Minor - sporadic one-time violations.
- Potential - exhibit problems that may lead to critical or serious problems in the future.
- Request assistance - systems foresee a capacity weakness and request assistance.

After MDEQ makes the priority determination, the Department will provide assistance from a variety of resources based on the needs of the system. Enforcement action will be initiated against any system that is unwilling to participate in the capacity development process.

MDEQ will prioritize NCWSs as follows:

- NCWSs with a water borne disease outbreak, or chronic violations of acute MCLs or treatment techniques (TT).

- NCWSs reaching formal hearing status for violations.
- Failure to employ a certified operator for public health treatment.
- SNCs, other than monitoring and reporting violators.
- NCWS with other MCL or TT violations.
- Potential SNCs.
- Significant uncorrected infrastructure deficiencies.
- Monitoring and reporting SNCs.
- NCWS brought to the informal hearing step for violations.
- Chronic failure to pay annual fees, civil fines, or State laboratory analytical fees.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

MDEQ identified factors that encourage capacity and factors that impair capacity for both CWSs and NCWSs. The Department plans to use the tools that enhance capacity to further strengthen the strategy and to make improvements as needed. As part of the long-term strategy, the Department will try to reduce or eliminate the factors that impair capacity and focus on specific factors for improvement. As part of the development of the NCWS strategy, local health departments determined that 8 factors encourage capacity and 4 factors impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Department has several existing programs which aid systems in complying with State and federal regulations, including amended Michigan SDWA regulations, which include capacity development requirements; TA contracts for assistance to small systems; SWA programs, and use of DWSRF funds for small system planning assistance; and source water and wellhead protection efforts. The Department plans to establish a Website to answer capacity development questions; establish a team of TA providers to refer systems in need of assistance; develop a system self-assessment; and encourage stakeholders to develop programs for rule training, wellhead zone delineation, and engineering assistance.

MDEQ plans to utilize existing programs and services to help NCWSs comply with applicable drinking water regulations.

2. Encouraging the Development of Partnerships Between PWSs

The Department plans to encourage stakeholders to provide mentoring opportunities to systems which lack adequate TMF capacity, and encourage systems to join professional organizations to improve communication among industry association professionals and water system operators.

For NCWSs, the concept of partnerships is difficult due to the complex nature and function of most NCWSs. The Department will encourage partnerships among systems with a common purpose by providing educational and networking opportunities.

3. Assisting PWSs with the Training and Certification of Operators

MDEQ plans to continue coordinating operator certification training and testing activities with the Michigan EPA Environmental Assistance Division (EAD), AWWA, and other TA providers.

The Department plans to significantly enhance the existing training and certification program through the implementation of new operator certification requirements for the 1,800 NCWSs in the State. MDEQ is encouraging stakeholders to provide training in operational responsibilities, rules, and rate structures. The Department has already contracted with a TA provider to train NCWSs that serve schools.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Department will examine several factors to establish a baseline and measure improvements. MDEQ plans to evaluate and compare information which is available in State maintained databases, including compliance data, the number of sanitary surveys and evaluations completed annually, the number of systems that complete a self-assessment each year, operator certification information, the number of public notifications distributed annually, enforcement information, and information on WHP and SWP activities. MDEQ is also considering using additional information including the number of systems with emergency contingency plans, the number of systems with acceptable standby power, the number of systems with Reliability Plans and General Plans, and the number of systems with Cross Connection Control programs. This data will be used when available.

Local health departments will analyze annual compliance reports which track monitoring, reporting, and MCL violation rates; and the Local Health Department's NCWS program performance evaluation to measure improvements in the NCWS.

E. §1420(c)(2)(E): Identification of Stakeholders

In order to identify interested stakeholders, the Department utilized the expertise of several organizations, including MDEQ, DWRPD, EAD, Michigan Department of Consumer and Industry Services, Michigan Department of Treasury, AWWA, RWA, Michigan Townships Association, Michigan Municipal League, Michigan Community Action, Public Sector Consultants, Michigan Association of Local Environmental Health Administrators, Michigan Association for Local Public Health, Small Business Association of Michigan, Michigan School Business Officials, Michigan Public Service Commission, Michigan Rural Community Assistance Program (RCAP), Michigan Manufactured Housing Association, PWSs, Michigan Consulting Engineers Council, contractors, law firms, and the League of Woman Voters.

The Department also made presentations at several conferences and meetings, posted information on the FOS Web site, and published articles in monthly drinking water association newsletters to reach a diverse group of stakeholders.

In developing this strategy, MDEQ invited representatives of NCWS associations and owners groups to attend and participate in the process. The strategy does not specifically mention how the stakeholders were involved.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

MDEQ has developed and adopted criteria for ranking CWSs and NCWSs in order to identify and prioritize systems most in need of TMF assistance. The hierarchical prioritization methodology will enable the Department to assist those systems which pose the most significant threat to public health first, and then assist PWSs with TMF deficiencies that are not a severe threat to public health. The Department also plans to continue using several tools and resources to assist systems with compliance, partnerships, and training and certification opportunities for certified operators. Finally, the implementation of this strategy focuses on prioritizing systems based on several criteria. MDEQ believes classifying systems to identify those systems most in need of assistance is the most important step in the capacity development strategy implementation process.

IV. Implementing the Strategy and Evaluating Progress

The Department will address those systems that need immediate assistance during the first phase of the strategy's implementation. MDEQ plans to address all systems that need TMF assistance over the long-term. MDEQ will use the results of the system improvement evaluation of as a measure of program success, and to determine if changes need to be made to the strategy.

Minnesota

I. Solicitation and Consideration of Public Comments

The Minnesota Department of Health (MDH) solicited involvement and public comments through the development of a questionnaire and through the creation of a stakeholders group. MDH held stakeholders meetings in June and July 2000 to gather information, comments, and suggestions on the development of the Capacity Development strategy for Existing Systems.

At the meetings, stakeholders were asked to review a draft of the strategy and to discuss potential improvements to Minnesota's drinking water program, provide input on the methods and criteria the State plans to use to identify the PWSs most in need of improving TMF capacity (element A), determine a baseline and an opportunity to measure outcomes (element D), and identify elements which encourage or impair capacity development (element B). MDH incorporated all public, stakeholder, and EPA comments as appropriate. The Department developed a questionnaire which was sent to all PWSs in Minnesota to invite participation in the development of the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

MDH and the Stakeholders Group will identify systems in need of improving TMF capacity by reviewing sanitary surveys, system planning documents, and analytical testing results; and through personal contact with system owners and operators.

MDH plans to prioritize systems using information which is maintained in existing databases. MDH will address systems in the following order: systems with emergencies and acute disease MCL or TT violations, SNCs with violations other than monitoring and reporting, potential SNCs, systems with MCL or TT violations, systems with infrastructure deficiencies and sanitary issues, SNCs with monitoring and reporting violations, and systems with training and planning needs.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The stakeholders group and MDH developed a list of factors that enhance or impair capacity in Minnesota. Fourteen factors were identified that encourage capacity, while 11 factors were found to impair capacity. MDH believes that the most important factor enhancing capacity is that several capacity development activities are regulated and implemented by MDH. This consolidated jurisdiction ensures non-duplication of effort and facilitates communication among staff and programs related to drinking water.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

MDH plans to continue implementing existing programs to expand the use of its current authorities and resources to develop new tools for assisting PWSs with compliance. Initiatives include: source water/wellhead protection programs; mandating service connection fees, additional training and education; and revising the sanitary survey process to include the review of managerial and financial information.

2. Encouraging the Development of Partnerships Between PWSs

Minnesota currently utilizes several resources which encourage partnerships, including cooperation with industry groups and newsletters that provide information on system developments. MDH plans to develop new tools such as joint operating agreements, public-private partnerships, "big brother" arrangements, and peer review programs, that will enable further development of the partnership initiatives.

3. Assisting PWSs with the Training and Certification of Operators

The Department plans to improve its operator certification program, develop DWSRF application criteria, and implement new training and TA programs to help systems train and certify operators.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Stakeholder group and MDH determined that the baseline would be the annual average rate of compliance for all PWSs taken together with the number of systems that did not remain in compliance for the entire calendar year. In order to measure the success of this program, MDH plans to evaluate trends in noncompliance rates compared to the baseline in order to target the best use of its resources.

E. §1420(c)(2)(E): Identification of Stakeholders

MDH compiled a list of interested Stakeholders including representatives from PWSs, various State and local agencies, TA providers, environmental organizations, and the general public. MDH contacted interested parties and individuals by mail, posted a Capacity Development Fact Sheet on its Web site, and circulated the questionnaire.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The Minnesota Capacity Development strategy is a comprehensive program based on years of experience implementing the drinking water program. The development of prioritization criteria will further enable the State to identify systems most in need of aid and to target assistance to those systems. Additional compliance, partnership, and operator certification programs, which are in development phase, will strengthen the current program. Finally, continued stakeholder involvement will ensure that the program

will be evaluated on a regular basis and that changes can be made based on current needs, resources, and the experiences of those implementing the strategy.

IV. Implementing the Strategy and Evaluating Progress

The State is currently implementing many of its programs to help systems acquire and maintain TMF capacity.

The Department plans to periodically evaluate the strategy and to make adjustments based on the needs of PWSs in the State. MDH also plans to continue soliciting comments and ideas from the public by continuing Stakeholder Group meetings, by posting the strategy and future documentation on the MDH Web site, and by periodically publishing articles in various newsletters.

Mississippi

I. Solicitation and Consideration of Public Comments

The Mississippi State Department of Health (MSDH) established an advisory Committee to assist in developing the State's Capacity Development Program. Several agencies and organizations representing a broad array of interests were invited to participate as members of the Committee. The Committee reviewed the State's draft capacity development strategy and capacity rating system and provided recommendations for revisions and improvements. In addition to the Advisory Committee, the MSDH conducted three public hearings to solicit public comment on the draft strategy and rating system. To provide maximum opportunity for participation, MSDH held these meetings in the north, central, and southern portions of the State. MSDH developed the final strategy based on the recommendations of the Advisory Committee and the comments received during the hearings.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

In consultations with the Capacity Development Advisory Committee and participants at the three public hearings, MSDH's Division of Water Supply developed a capacity rating system for all PWSs. During annual sanitary surveys, Water Supply regional engineers will complete a Capacity Assessment form answering five major yes/no questions related to the TMF components of capacity (15 questions overall). Each response earns a set number of points. The total points for each component area are added together to derive an overall capacity rating. Using these results, MSDH will rank all systems according to their need for assistance.

The managerial and financial portions of the form are tailored to the three major types of PWSs—municipal, private, and non-profit. MSDH intends to modify the rating system as necessary to effectively assess the needs of "non-typical" PWSs such as mobile home parks and NTNCWSs.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

MSDH identified several key factors that encourage capacity in PWSs including required board member training, the submission of annual financial reports, TMF evaluation for CDBG grants, no-cost TMF assistance to a minimum of ten systems each year, annual sanitary surveys, mandatory approval of engineering plans and specifications, administrative penalties for PWSs that have exceeded design capacity, and stringent enforcement of SDWA requirements. MSDH does not identify factors that impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Mississippi provides TA to PWSs through contacts with private organizations. The contracts are funded with set-aside funds from the DWSRF program. MSDH entered into multi-year contracts with the RCAP/Community Resources Group and with the Mississippi Rural Water Association to provide comprehensive TA to systems throughout the State. MSDH has also contracted with the Mississippi Extension Service to develop a training manual and to coordinate the State's PWS Board Member training program.

Four new pieces of legislation are helping to improve the capacity of water systems in Mississippi. Under one statute, board members of all non-profit (rural) water systems and municipalities serving fewer than 2,500 people are required to attend 8 hours of management training within 2 years of being elected or re-elected to the board. In response to this legislation, the Division of Water Supply met with the Mississippi Extension Service to develop a board member training program and manual using set-aside funds. New legislation also requires non-profit (rural) water systems to prepare and submit a standardized annual financial report to the State Auditor's office. A third piece of legislation that recently passed prohibits the Mississippi Department of Economic and Community Development (DECD) from awarding CDBG to PWSs unless they are viable or will be made viable by the grant award. In accordance with the last piece of legislation, MSDH must identify at least 10 PWSs each year that are in need of comprehensive TMF assistance and must provide this assistance at no cost.

2. Encouraging the Development of Partnerships Between PWSs

MSDH encourages systems with inadequate capacity to form cooperative arrangements, including physical consolidation and administrative mergers, by increasing the number of enforcement actions, imposing administrative penalties on systems that serve customers in excess of their approved design capacity, and by reviewing plans and specification.

3. Assisting PWSs with the Training and Certification of Operators

In 1997, Mississippi passed legislation requiring that only individuals licensed by the State can operate PWSs. An Annual Operating Agreement (AOA) must be negotiated between the certified operator and the responsible official for each individual system. The AOA ensures that the responsible official understands what operators must accomplish on a routine basis to effectively operate the system, and that operators actually complete the routine activities.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

MSDH will determine a baseline capacity rating during the sanitary survey of each PWS. MSDH will gauge the effectiveness of its capacity development strategy by examining the capacity ratings from year to year, and by tracking compliance rates.

E. §1420(c)(2)(E): Identification of Stakeholders

MSDH formed the Advisory Committee to assist with the development of its capacity development program. The State affiliations with all of the major industry associations (i.e., Mississippi Rural Water Association, Mississippi Manufactured Housing Association, Mississippi Manufacturers Association, etc.), and relevant State agencies and private organizations were invited to participate on the Committee.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

MSDH developed a capacity rating system for all PWSs whereby TMF capacity will be assessed annually and systems will be prioritized according to their need for assistance. The rating system will allow MSDH to evaluate improvements in capacity on a system-by-system basis and will help to gauge the overall effectiveness of the program. The State has set aside funds from the DWSRF that will enable it to provide comprehensive TA to the systems that need it most, as identified through the rating process, as well as to those that request assistance from the State.

IV. Implementing the Strategy and Evaluating Progress

The State will rely on the results of annual capacity ratings issued during sanitary surveys, and the tracking of compliance rates to determine the effectiveness of the strategy.

MSDH began implementing its capacity development strategy in July 2000. They reported noticeable improvements in the management and operation of PWSs in a September 2000 letter to EPA, which accompanied the submission of the final strategy document.

Missouri

I. Solicitation and Consideration of Public Comments

The Missouri Department of Natural Resources' Public Drinking Water Program (PDWP) invited various water organizations, agencies, and water utilities to form a Capacity Development Advisory Committee. The Committee developed a Missouri *Report of Findings* (the *Report*) that served as a draft capacity development strategy.

To solicit comments on the *Report*, PDWP contacted all CWSs and NTNCWSs by mail and held a number of stakeholder and public meetings. PDWP issued a public news release and notice of six public meetings. The Advisory Committee also distributed information through the Department's TA Program (TAP), the Mid-America Regional Council, and the Missouri Association of Councils of Government. PDWP made presentations and distributed an initial draft of the *Report* at the American Water Works Association (AWWA), Missouri Water Well Association, Public Service Commission, Missouri Rural Water Association (MRWA), and Environmental Management Institute (EMI) meetings. Presentations on the proposed strategy were given by various members of the Advisory Committee at the Missouri Department of Health's Environmental Health Conference and at the USDA Engineers Meeting in 1999. The Department posted the *Report* on its Web site and made note of the invitation to submit public comment in its newsletter. The Missouri Section of the AWWA, the MRWA, US EPA, and the Environmental Finance Center were each asked to make the *Report* available on their Web sites as well. PDWP responded to the comments it received on the *Report* in the first section of its final strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

PDWP will identify and prioritize systems by reviewing their compliance records. Systems with violations will be categorized into one of three classes:

- Critical (Class 1): systems with Administrative Orders for Significant Non-Compliance.
- Serious (Class 2): systems in Significant Non-Compliance that have not been issued an Administrative Order.
- Potential problems (Class 3): systems identified through operational test data on water quality parameters.

Systems that do not fall into the above categories but request assistance will be helped as resources allow.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Advisory Committee identified 83 factors on the federal, State, and local levels that either enhance or impair system TMF capacity. Of these, the Committee specified 39 factors for consideration as part of the strategy. These factors formed the basis for developing and selecting the strategy's program

recommendations for improving TMF capacity. (Program recommendations are included under Element C.)

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

PDWP or a third party will conduct "enhanced" sanitary surveys of priority systems using a newly developed TMF Checklist. Inspectors will meet with the system's operation and management staff to discuss TMF deficiencies discovered during the survey. If the system is having financial difficulties, TAP will provide financial planning assistance. TAP utilizes its User Charge Analysis software to help systems examine and adjust their rates to maintain adequate revenues and assure equitable rates.

In addition to referring systems to TAP, PDWP will work with other assistance organizations, including the AWWA, the EMI, the Midwest Assistance Program (MAP), and the MRWA, to ensure that they incorporate capacity development issues into their training programs. In response to a survey circulated among stakeholders by PDWP, these organizations indicated that they would be willing to assist in on-site and off-site TA efforts. PDWP will use future DWSRF set-aside funds to contract with engineers to provide systems with specialized TMF capacity assistance.

PWDP will continue biweekly meetings with the Water and Waste Water Review Committee (W&WWRC) and will increase communication with the Department of Health and the Public Service Commission to reduce overlapping or disjointed services and missions. During these meetings, PWDP will aim to improve funding opportunities for capacity development related programs. Coordination with W&WWRC will also help ensure that systems with poor operation and management are not being rewarded with funding. In another effort to improve funding services for PWSs, PDWP and TAP will coordinate with the Missouri Bankers Association (MBA) to explore alternative financing options for small systems.

2. Encouraging the Development of Partnerships Between PWSs

During sanitary surveys, PWDP will encourage large systems to assist small systems and, in particular, to take the lead in mass public education efforts (e.g., by offering their facilities as meeting sites). Working together to provide public education increases interaction among neighboring systems. In addition, PDWP has developed Model Emergency Operation Plans and other model ordinances that recommend resource sharing between systems. (See TAP's Web site at http://www.dnr.State.mo.us/deq/tap/hometap.htm for model ordinances.) PDWP will request that other agencies encourage partnerships during their training programs. The State indicates in its strategy document that PDWP may use future set-asides to support the regionalization/consolidation of existing systems in areas where systems have compliance problems.

3. Assisting PWSs with the Training and Certification of Operators

One impairment to capacity identified under SDWA §1420(c)(2)(B) was the need to improve operator knowledge of relevant rules and regulations. In response to this need, operators will earn Continuing Education Units towards recertification by attending rules hearings and meetings. PDWP will continue

to provide information and updates on upcoming rules in technical bulletins, fact sheets, training courses, and on the Department's Web site.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

PDWP will use compliance records of those systems that are selected for assistance as a baseline, and will track the compliance of these systems as they receive assistance to measure improvements in the systems and the success of the program. PDWP will also track statewide trends in compliance, but expects that system-specific compliance tracking will more accurately measure the effectiveness of the capacity building efforts. PDWP will keep records of assistance programs and track the number of enhanced sanitary surveys and site visits that are performed by PDWP and its partners. In addition, PDWP will conduct surveys to obtain feedback on its TMF assistance efforts.

E. §1420(c)(2)(E): Identification of Stakeholders

PDWP invited various water organizations, agencies, and water utilities to form the Capacity Development Advisory Committee. The Committee approached many stakeholder groups at meetings and conferences to identify other individuals interested in providing comments on the *Report of Findings*. Newsletters, press releases, Web site postings, and wide distribution of the *Report* also helped inform interested persons of capacity development activities.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Missouri examined system TMF needs, considered how the needs might be met, and developed a strategy to meet the TMF goals of the systems and the State. Missouri's strategy provides for direct TA to those systems with the most significant compliance problems and for the continuation of many activities that have already provided benefits to systems, such as public education and the encouragement of partnerships. To improve the support system for all PWSs, Missouri will place a new emphasis on interagency coordination for funding and training programs.

IV. Implementing the Strategy and Evaluating Progress

Using DWSRF set-aside funds, PDWP has hired three new Regional Office staff to conduct enhanced sanitary surveys, one TAP staff person specializing in operator certification and out-reach to non-community water systems, and one TAP staff to develop and implement financial capacity assistance measures. PDWP is currently in the process of contracting with various organizations and engineers to provide training. PDWP is considering using future set-aside funds for regionalization and consolidation efforts activities. To pursue its interagency coordination goals, PDWP met with MBA and DOH earlier this year and will continue to hold regular meetings. The Capacity Development Advisory Committee will meet annually to review the sanitary survey TMF checklist, to discuss the success and possible shortcomings of the strategy, and to determine what improvements are needed, if any.

Montana

I. Solicitation and Consideration of Public Comments

Montana's Department of Environmental Quality (MDEQ) Public Water Supply (PWS) Section organized three regionally located public hearings and invited the public to attend. The Section presented the draft strategy and encouraged the attendees to make comments; two participants provided input. Due to this limited public involvement, the PWS Section developed a new approach to solicit and obtain public input.

The new approach involved presenting the strategy at a series of previously scheduled meetings and seminars throughout the State. In total, MDEQ made seven presentations between February and June of 2000. Presenters spoke at a variety of conferences, including the Rural Water Systems Conference, DWSRF Advisory Committee meeting, an AWWA Conference, and a capacity strategy meeting. The Section gathered several comments, including: improving the sanitary survey process to encompass financial and managerial factors, building trust among operators and board members, concentrating financial and managerial assistance on fewer systems to provide a higher level of service, providing training for board and council members, and continuing to provide sampling schedules to operators. The PWS Section included these comments in the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

In order to identify systems in need of improved TMF assistance, the PWS Section will use the following methods:

- Review monitoring data.
- Evaluate the SNC list.
- Perform sanitary surveys and evaluate results.
- Make preliminary assessments for GUDI systems.
- Conduct SW assessments.
- Coordinate with Midwest Assistance Program (MAP) and Montana Rural Water Systems (MRWS) staff to identify systems in need of assistance.
- Evaluate systems that have proposed construction improvements or expansions.
- Coordinate with the Public Service Commission to identify systems that need to raise rates or that have revenue issues.
- Consult system CCRs to identify capacity issues.

The State will prioritize systems based on the health risks associated with TMF deficiencies and any requests for assistance by systems. MDEQ developed a set of comprehensive flow charts to determine priority categories and to provide examples of the type of assistance that will be given based on the individual needs of the system.

- First priority systems are those which have an acute MCL violation, are a SNC, or which fail the GUDI assessment and become classified as a surface water system.

- Second priority systems are those which have a non-acute MCL violation or have failed the GUDI assessment, but require minor TMF improvements to maintain compliance.
- Third priority systems are those that request assistance. These systems are further prioritized as follows: CWSs and schools, NTNCWSs, and TNCWSs.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Section identified seven factors which encourage capacity and two factors which impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The State currently provides assistance to systems through a variety of programs and activities including: assistance to operators through an O&M contract with MAP, helping systems develop a sampling schedule, ensuring proper sampling procedures, and assessing other operator-related issues.

MDEQ has entered into a contract with a third party TA provider to provide financial and managerial assistance with rate establishment, financing improvements, cash flow issues, administration, and staffing. The Department also plans to develop a self assessment survey that focuses on staffing qualifications, management and administration, and assessing finances of the water system. Montana's PWS Section plans to use DWSRF funds to improve existing programs, to add new staff, and to create SWP plans for each system.

2. Encouraging the Development of Partnerships Between PWSs

The strategy does not include information on developing partnerships between PWSs.

3. Assisting PWSs with the Training and Certification of Operators

MDEQ, PWS Section plans to use their DWSRF Operator Certification set-aside to support the Operator Certification Program within the State. Currently, the Water and Wastewater Operator Certification program offers testing, record keeping, program information services, and ensures that ongoing training is provided to water operators.

Montana's Operator Certification program also involves a variety of stakeholders groups including: the Governor-appointed Water and Wastewater Operators' Advisory Council (Council), and the ad hoc continuing Education Credit Review Committee. These groups provide support on training and continuing education credit decisions. The members of the Council meet on a quarterly basis to make recommendations on operator certification issues, to administer examinations, to teach math review sessions, to assist with exam validation, and to update study materials.

The Montana Environmental Training Center publishes an annual training calendar for water, wastewater, and other environmental professionals which details the date and location of training programs such as AWWA programs, Montana University System, Water Center courses, and Continuing Education Credit courses and seminars.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

MDEQ will use their 1999 Annual Compliance Report to establish a baseline against which improvements will be measured. The Department will compare the annual number of systems with compliance violations. Any reduction in the number of compliance violations will be considered an improvement.

E. §1420(c)(2)(E): Identification of Stakeholders

The Section involved stakeholders from a variety of organizations and associations throughout the State. AWWA; MRWS; the Montana Association of Water and Sewer Systems, Water, Wastewater, and Solid Waste Action Coordinating Team; and the DWSRF Advisory Council members were all involved in, and all held various meetings during, the development of the strategy. MDEQ invited the public to attend these conferences and meetings and encouraged participants to make comments on the draft strategy.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Montana's strategy will enable the PWS Section to provide assistance to PWSs that need compliance, operator certification, and other types of TMF assistance. The Section will prioritize and identify systems by using a flow chart that targets systems with acute health violations first. Systems with non-acute health violations and systems that request assistance will be helped as resources allow. MDEQ plans on improving existing programs and activities, and developing new initiatives using DWSRF funding.

IV. Implementing the Strategy and Evaluating Progress

The PWS Section will continue to involve stakeholders implementing and evaluating the success of the strategy by presenting the strategy at training sessions and conferences. The PWS Section will involve consultants, operators, PWS owners, board and council members, and industry associations to ensure a wide variety of opinions and experiences.

The PWS Section will make changes to the strategy based on the needs of water systems and comments received from the public. The Section will re-evaluate all administered TA contracts on an annual basis to ensure that the services provided are meeting the needs of the water systems.

Nebraska

I. Solicitation and Consideration of Public Comments

The Department of Health and Human Services (DHHS) convened a strategy Committee, made up of representatives from a broad spectrum of interested parties, to consider the five elements of SDWA §1420 (c)(2). Through a series of public meetings, the strategy Committee developed a *Report of Findings* (the *Report*) that included their conclusions and recommendations. DHHS posted the *Report* on the Department's Website with instructions on how to submit comments.

DHHS also held three public meetings around the State. In an effort to increase participation, DHHS combined the capacity development strategy meetings with public meetings on the requirements of the Interim Enhanced Surface Water Treatment Rule and the Disinfection/Disinfectants By-Products Rule. DHHS incorporated all of the comments (except one) from the public meetings, along with the information and recommendations made by the strategy Committee in the *Report*, into an outline of the State's Capacity Development strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The State has identified systems with pending administrative orders, SNCs, those with acute violations, and systems with multiple violations, as priority systems. DHHS will further prioritize systems based on the number and severity of the system's deficiencies or violations. Systems on the DWSRF project priority list will also be given priority.

This method of prioritization will be used until DHHS begins using its enhanced sanitary survey form (described in further detail below) in January 2001. Systems will be added to the priority list using the following criteria and ranking scheme:

- Systems with TMF deficiencies that present a direct or potential threat to public health (critical systems) will be assigned a value of either 5, 7, or 10 points depending on the severity and immediacy of the deficiency (e.g., a 5 represents a potential threat while a 10 represents and immediate and direct threat to public health).
- Systems with potential TMF deficiencies (serious systems) will be assigned a 1, 2, or 3 where 1 represents a relatively minor deficiency and 3 a more serious deficiency. Systems with a number of serious deficiencies may be categorized as critical.
- Systems that have minimal deficiencies or have corrected previously identified deficiencies (minor systems).

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The strategy Committee identified 191 factors at the federal, State, and local level that either enhance or impair capacity development in PWSs. The Committee reviewed 112 factors (47 that enhance and 66 that impair) while developing the *Report of Findings*. The other factors were included in the *Report* but were not part of the Committee's deliberations.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The activities and programs that will assist PWSs with compliance include:

- Enhanced sanitary survey form. DHHS revised their sanitary survey form to include financial and managerial information. Including this information in the survey will help systems plan for the future, thereby increasing the possibility of long-term compliance. DHHS and members of the Two Percent TA Team will hold meetings with systems to answer questions arising from the survey, and to provide additional TA.
- Two Percent TA Team. DHHS in conjunction with several organizations and associations that provide assistance to PWSs, will meet every two or three months to review a list of systems most in need of assistance (provided by DHHS Regulation and Licensure). The Team will decide which entity can best provide the assistance that is required.
- Public education. DHHS recognized the strong need for a more enhanced public education program and therefore will develop and implement one.
- Water meter requirements. All DWSRF applicants will need to install metering devices (except under limited circumstances).
- Fiscal management training. DHHS will hold a series of meeting throughout the State to discuss innovative techniques for financing improvements to small water systems. The Department is also investigating whether rate-setting and financial management training can be presented at the same time.
- Enhanced dissemination of information on proposed and upcoming rules. DHHS has notified potentially impacted systems by mail, and through site visits and informational meetings. The Department is also developing an automatic e-mail service to keep operators updated on rule developments.
- Board member training. DHHS is designing a board and council member training module that will focus on long-term planning; financial management; full-cost financing; and regulatory, environmental, and financial controls. Training is voluntary.
- Plain English handbook of regulations. DHHS is developing a handbook that will explain the TMF capacity requirements. The Department wants to include all of the proposed regulations and therefore the handbook will not be finalized until 2003.

2. Encouraging the Development of Partnerships Between PWSs

DHHS will lead a task force of organizations through a series of meetings to discuss land use planning issues including consolidation of existing systems. Currently, there is a lack of planning in rural areas which is impacting the affordability of safe drinking water.

2. Encouraging the Development of Partnerships Between PWSs

DHHS will hold a series of Stakeholder meetings to discuss the new operator training regulations which become effective January 2002. Recent regulatory changes that will help operators include changing the training format into a series of training modules, giving certification exams at locations around the State, and reclassifying systems to more accurately reflect the level of treatment provided and population served so that system personnel will be certified to the appropriate level.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Until DHHS completes the first round of sanitary surveys using the enhanced form, the Department will establish a baseline using the information used to prioritize systems (systems with pending administrative orders, SNCs, systems with acute and multiple violations).

During the first three years of strategy implementation, DHHS and the Two Percent TA Team will measure improvements by examining the outreach and assistance performed. DHHS will evaluate the number of sanitary surveys performed on an annual basis and the number of site-visits and type of assistance rendered, conduct follow-up with systems via a survey to gather feedback on the effectiveness of the TA, and examine if trends in the types of deficiencies are determinative of how the public outreach programs are working.

E. §1420(c)(2)(E): Identification of Stakeholders

DHHS sent invitations to participate on a stakeholder group to an extensive number of individuals, organizations, associations, and other parties interested in drinking water issues. Committee members were drawn from the broadest possible spectrum of interested parties. Additional individuals who were not formally appointed to the Committee attended meetings and contributed to the *Report of Findings*.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The strategy represents a philosophical commitment to the T, M, and F improvement of PWSs. The Department gathered information on current system needs and made assumptions about future needs, analyzed how to meet system needs, examined the available resources, established priorities, and developed methods for measuring improvements and amending the strategy if necessary. The strategy formally links planning, budgeting, and operational activities to achieve TMF goals at both a system and State level.

IV. Implementing the Strategy and Evaluating Progress

DHHS has proposed a time line for strategy implementation. Most of the activities or programs will be implemented within the first two years. Since the enhanced sanitary survey is the cornerstone of the State's strategy, this activity will be implemented first (i.e., by January 1, 2001). Initially, all systems will be evaluated every three years. If after the first three-year cycle, a system demonstrates adequate TMF capacity (i.e., no violations, no requests for assistance, or no serious deficiencies), the system will be evaluated every five years.

Implementation activities include the ongoing review of the strategy. DHHS will meet with the strategy Committee to examine the progress of systems and make changes to the strategy as appropriate.

Nevada

I. Solicitation and Consideration of Public Comments

The Bureau of Health Protection Services (BHPS) formed a capacity development stakeholders group to gather input on the development and implementation of the State's capacity development strategy. During the first stakeholder meeting, the group divided into four smaller input sessions to address issues facing small systems, impairments and enhancements to capacity development, additional programs to assist systems, and goals and priorities for a capacity development strategy. BPHS used the comments and recommendations from these input sessions to develop a draft of the strategy.

At a final public workshop/stakeholder group meeting, BHPS presented a draft of the strategy and additional input was solicited on BHPS's prioritizing scheme, a capacity assessment form, the additional programs BHPS would like to develop, and the proposed measures to evaluate the success of the program. Attendees were also asked to describe how BHPS could supplement existing partnership efforts and to provide feedback on the frequency of future stakeholder and public involvement.

BPHS categorized comments and suggestions gathered at the stakeholder meetings into four groups: incorporate into strategy now, consider item for future consideration, not for consideration followed by an explanation, and information only.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The Bureau will use information from several sources to identify systems in need of assistance. BHPS will examine the State's SNC list and the list of systems targeted for TA; sanitary surveys; operator certification program information; and data from training and TA programs. The Bureau is currently developing a Source Water Assessment (SWA) program, a Wellhead Protection (WHPP) program, and a Underground Injection Control (UIC) program which will eventually be used to identify additional systems.

The Bureau decided to use a matrix system developed by the Oregon Health Division to prioritize systems. The matrix uses risk factors relative to compliance problems and ranks system most in need of help. Initially, the State will use data on the health and water quality threats to public health, monitoring and reporting violations, and operator certification information in the matrix. Additional managerial and financial information collected through TA contracts will be integrated into the matrix over the next few years.

B. §1420(c)(2)(B): Identification of Factors that Enhance or Impair Capacity

The stakeholders group identified 100 factors at the federal, State, and local level that either enhance or impair capacity development. Enhancements include the Bureau's management of all programs that fund or oversee PWSs; accessibility of BHPS staff; technical support; availability of funds; adequate number of TA providers; Nevada Water and Wastewater Training Coalition; economic

diversification;CCRs; new operator certification requirements; solid master planning; DWSRF funding; Infrastructure for Nevada Communities (INC); and communication between cities, counties, and State offices.

Impairments include lack of consumer education, proposed radon and arsenic standards, regulatory "red tape", lack of funding, lack of planning, lack of economies of scale, inadequate board and staff training, geographic locations, and economic disparity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Several tools exist to aid systems in complying with NPDWRs in Nevada. They include sanitary surveys, training and TA programs, and enforcement activities. In response to suggestions made by stakeholders, the Bureau is currently developing SWA, WHPP, and UIC programs; public education materials; a water system planning manual; a system self-assessment; and an "enhanced" sanitary survey form that includes an evaluation of a system's financial and managerial capacity.

2) Encouraging the Development of Partnerships between PWSs

The Bureau does not explain how it will encourage partnerships between PWSs

3) Assisting PWSs with the Training and Certification of Operators

Currently the Bureau requires PWSs to employ a certified operator and provides training and TA to PWS operators. BHPS plans to incorporate board member training and develop a drinking water handbook to supplement the existing program.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Nevada plans to use the SNC list and the list of systems in need of TA (described in Element A) as a baseline against which it will measure improvements.

Each quarter, BHPS tracks:

- Number of systems (by type).
- Population served (by type).
- Number of system with MCL violations (by type).
- Number of systems with monitoring or reporting violations.
- SNCs.
- The number of certified operators.

The Bureau will also track the volume of capacity activity including the number of completed:

- Capacity assessments.
- On-site TA visits.
- Training sessions.
- Enhanced sanitary surveys.

E. §1420(c)(2)(E): Identification of Stakeholders

BHPS invited representatives of federal, State, and local governments; public and private PWSs; customers; and drinking water organizations and associations to form a stakeholder group.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

BHPS developed a comprehensive strategy to help PWSs in Nevada achieve and maintain capacity. This strategy includes a methodology to identify and prioritize water systems in need of TMF assistance developed in part by stakeholder discussion groups. This portion of the program will enable BPHS to identify those systems most at risk for violating NPDWRs and supplying water which may pose a significant threat to public health. The Bureau plans to continue using several existing tools and to develop several more tools which will aid systems in complying with NPDWRs. The strategy will be evaluated by studying SNC lists, the number of certified operators, and by tracking the volume of capacity activity.

IV. Implementing the Strategy and Evaluating Progress

BHPS plans to schedule regular meetings with TA providers to discuss which systems are most in need to assistance and the types of assistance that should be provided.

New Hampshire

I. Solicitation and Consideration of Public Comments

New Hampshire's Department of Environmental Services (DES) invited interested stakeholders from the water industry to participate in two public peer review meetings held in the spring of 2000. Those present drafted a report on the State's current Capacity Assurance strategy and suggested modifications to it. DES stated that although there was "reasonable participation from the invited peers, there was relatively little critical critique and/or ideas from the water industry ... other than comments concerning funding." DES provided a response to all comments, provided an explanation of their expected action, and incorporated all comments into the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DES did not, and is not planning on, formally assessing the status or capabilities of their entire PWS inventory because of the time involved. Rather, DES's Water Supply Engineering Bureau staff and the DES enforcement coordinator identified PWSs that are potential candidates for receiving capacity assurance program services and evaluated these systems for likely success with the program. The system is placed on either a capacity assurance candidate list or on the enforcement roster.

As a general policy, assistance will be provided to owners or operators who want to improve their systems. DES will assist systems with MCL or monitoring and reporting violations first, followed by systems demonstrating source limitations, piping and storage limitations, and outages.

A system can also request services.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DES identified 3 factors that enhance capacity including the small size of the State, DES's relationships with other State agencies, and very little political interference in the regulatory process. DES also identified 7 factors that impair capacity including the State's conservative political philosophy, a low number of stockholder water utilities, and untrained or unavailable health officers.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DES's strategy will address the relatively small number of noncompliant systems. The Department will continue to provide diagnostic assistance (on-site TA), training seminars and educational programs and design review. DES will also continue to publish a SDWA newsletter and utilize the DWSRF set-aside to contract with outside entities that have managerial expertise.

The Department is also planning to:

- Provide additional training through the Internet.
- Develop a series of educational handouts on various managerial and financial topics.
- Develop a managerial or financial course.
- Develop a generic business plan that systems can use as a model.
- Review the DWSRF program to determine the feasibility of providing grants to small systems and to streamline the DWSRF application process.

2. Encouraging the Development of Partnerships Between PWSs

DES's program initiatives for regionalization and interconnection of water supplies are driven by circumstance and not subject to formal rules and regulations. As the density of PWSs in the State increases and their proximity to one another decreases (as systems are built in more rural areas), the potential for interconnection and assimilation improves. The State intends to maintain an on-going relationship with specialized water industry peer groups, such as Northeast Rural Water Association and Rural Community Housing. This will make "on-call expertise" available to educate systems on how to make partnership-forming financial and managerial choices.

3. Assisting PWSs with the Training and Certification of Operators

DES will continue to implement an operator certification program that has been in existence since 1980. In addition, special technical seminars, fall trade shows and classes, and annual educational courses will provide additional educational information to operators and owners.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DES will make an annual assessment of all systems to determine the degree to which systems are in compliance or in jeopardy of falling out of compliance. The baseline date is June 30, 2000, and annual measurements will take place on each June 30th thereafter. A deficiency rating for each system is calculated based on compliance with the State's Rules. Point values for non-compliance vary depending on the nature and severity of the rule. At the end of each accounting year, DES will reassess each system that receives one-on-one capacity assurance services. Improvement for a system that receives services will be measured by the lowering of its deficiency rating.

The Department will develop a database to track the type and number of hours of services provided by DES and third party providers. To measure the effectiveness of the capacity assurance strategy, DES will examine:

- General State Program Data: number of PWSs, number of DES staff, operator certification, and program budget information.
- System Specific Data (weighted measurements): number of systems on boil orders, number of systems out of MCL compliance, number of systems out of monitoring compliance, number out of compliance with consumer confidence notice, number with source water protection plans, number with cross connection plan.
- Facility Deficiencies (weighted): number with emergency or business plans, number with O & M manual, number requiring facilities improvements, number of complaints.

E. §1420(c)(2)(E): Identification of Stakeholders

Peer review meeting participants included representatives from water works associations, builders, system owners, engineers, planning agencies, and State government staff.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DES already provided many capacity assurance services to systems in need including engineering design review, TA to system owners and operators, educational programs, operator certification, water quality monitoring, and enforcement. The Department will focus their efforts on those systems at risk of non-compliance and those with serious facility weaknesses. DES provides on-site, one-on-one services to those systems that have a desire to participate. Resources are not "wasted on recalcitrant systems as they seek to delay enforcement or reduce penalties." The Department will measure improvements annually and adjust the strategy as appropriate.

IV. Implementing the Strategy and Evaluating Progress

The enforcement coordinator, along with a committee of DES staff, will track the type and number of hours of assistance and evaluate the success of those services.

New Jersey

I. Solicitation and Consideration of Public Comments

The New Jersey Bureau of Safe Drinking Water (BSDW) held four separate stakeholder meetings during August and September 1998. The goal of the meetings was to gather input on several elements of the capacity development strategy and to solicit comments on a draft.

BSDW made presentations at NJ Rural Water Association (RWA) meetings and Rutgers University's SDWA courses. Attendees were encouraged to submit written comments and suggestions on the strategy. The Bureau also began meeting with the Board of Public Utilities on a quarterly basis to discuss the strategy and to discuss small system compliance issues.

In June 2000, BSDW posted a draft of the capacity strategy on its Website and sent notices indicating its availability to several newspapers, all PWSs in the State, County Environmental Health Agencies, and other identified stakeholders.

BSDW incorporated stakeholder comments into the draft and addressed certain comments in the Capacity Development strategy Support Document published August 2000.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The BSDW plans to evaluate a system's compliance history, compliance inspection results, and the SNC list to identify systems most in need of TMF assistance.

The Bureau will assess the identified systems and classify them as exhibiting adequate capacity or inadequate capacity. Systems with inadequate capacity will be considered priority systems and will be further prioritized in the following order: CWSs serving populations less than 3,300; NTNCWSs such as day care facilities, schools, and health care institutions; TNCWSs, including restaurants and campgrounds; and all other PWSs not covered above. All systems with inadequate capacity will receive TMF assistance from TA providers, and may be required to develop a managerial and financial plan.

Systems with adequate capacity will be encouraged to participate in the Capacity Development Enhancement Program and complete a TMF assessment form.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Bureau chose not to include this element as part of the strategy at this time. BSDW determined that enhancements and impairments affecting the capacity of PWSs would become more apparent as the strategy is implemented. BSDW plans to address and make modifications to this section as necessary.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

In addition to existing programs and activities, the Bureau is considering several new initiatives to assist systems with compliance activities including:

- The creation of a capacity development enhancement process to address the underlying causes for inadequate capacity and to provide the system with an outline of corrective actions to address the causes. TA will be provided by the State or its third party providers.

- Establishing TA, comprised of staff from the drinking water and enforcement programs, to provide one-on-one assistance to designated PWSs.

2. Encouraging the Development of Partnerships Between PWSs

BSDW will sponsor workshops on, and encourage participation in, programs related to the development of partnerships among water systems. As part of this initiative, the Bureau will recommend that larger systems include small systems in training programs whenever appropriate, and promote roundtable sessions to improve interaction among systems of similar size. BSDW anticipates these sessions will enable systems with inadequate capacity to learn from their peers.

3. Assisting PWSs with the Training and Certification of Operators

New Jersey will provide basic training courses in water treatment plant operation and distribution system operation and maintenance, and will work with State colleges and universities to provide additional training programs. The Bureau plans to create and maintain a library of resources to help operators and managers increase TMF capacity. The library will be made available via hard copy and electronically at the State's Web site.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Bureau is currently developing a baseline from which to measure improvements.

Once the baseline is established, BSDW will measure improvements by examining SNC status, MCL violations, monitoring and reporting violations, DWSRF allocations, the number of operator certification training sessions offered and the number of people attending these sessions, the number and types of certified operators, the number of public notifications, and the number of formal enforcement actions taken.

E. §1420(c)(2)(E): Identification of Stakeholders

BSDW mailed an invitation to participate in Stakeholder meetings to County Environmental Health Act Certified Agencies, the Board of Public Utilities, the Division of Water and Sewer; the Department of County Affairs, the Division of Local Government Services, the New Jersey Environmental Federation, the Sierra Club, the Association of NJ Environmental Commissions, the New Jersey Health Officers

Association, AWWA, NJRWA, Rural Community Assistance Program (NJRCAP), the NJ Manufactured Housing Association, PWS owners, and licensed certified operators.

The Bureau also invited the public to comments on the draft strategy by posting it on the State Web site.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The strategy provides the framework for identifying and prioritizing systems most in need of improving their capacity, establishing how the State will use the authority and resources to assist those systems, and a method for measuring improvements. The chosen elements provide a basis for establishing standards, time lines, partnerships, training, corrective action, and coordination of resources and services. The strategy includes linking existing enforcement, source water protection, and training programs with capacity development.

IV. Implementing the Strategy and Evaluating Progress

BSDW is currently preparing an updated SNC list, a database to assess compliance history, a database to compile information on evaluation inspections, a resource library, and a baseline against which the State will measure improvements in system TMF capacity.

Future implementation efforts will include the formation of a capacity development TA unit within the Department of Environmental Protection, coordination of contracts for training providers and operator certification courses, the completion of an objective analysis of whether the capacity development program is in compliance with federal law; and coordination of contracts with RWA and other TA providers.

New Mexico

I. Solicitation and Consideration of Public Comments

The New Mexico Environment Department (NMED) held five regionally located meetings during the development of the State's capacity development strategy. During the meetings, participants were divided into groups to discuss the SDWA §1420(c)(2) elements. The Department made presentations on a variety of topics including: issues facing small systems, potential weaknesses in the State program, on-site assessments and assistance, TA efforts, education and public outreach, communication and data systems, and board/council training opportunities. Meeting participants were asked to rank the proposed program elements.

The Department also continued to meet with its standing Drinking Water Advisory Group. Based on the comments from the meetings NMED developed a draft of the capacity development strategy and presented it at a joint NMED and Drinking Water Bureau Advisory Group meeting. NMED invited the public to attend and provide input.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The Department plans to use compliance and enforcement data, sanitary surveys, SRF application information, and requests for assistance to identify systems in need of improvement.

NMED will focus on systems in the following order: small publicly-owned water systems and municipalities serving less than 3,300, systems with immediate emergency needs, systems with TMF deficiencies, systems which may become deficient within five years with no assistance, and systems which require limited assistance to obtain funding for infrastructure upgrades.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

Stakeholders and NMED developed a list of 12 enhancements and 15 impairments to the development of adequate system capacity. The Department plans to utilize programs which have been identified as enhancements and will develop new assistance programs to further strengthen their efforts.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

During the stakeholder meetings, several existing programs were identified which serve to assist PWSs with compliance activities, including: Statewide compliance sampling and analysis programs, interagency coordination, DWSRF funding programs for TA providers, and small system TA. The Department will continue to implement these programs to assist systems and also plans to expand and add several new programs over the next few years.

Within the next three years, NMED is considering:

- Providing additional assistance to DWSRF applicants who are having difficulty negotiating the application process and standardizing funding applications.
- Expanding TA program coordination and oversight activities and existing managerial and financial assistance activities.
- Providing board/council member and operator certification training programs to all systems and initiating a voluntary Board Member training certification program. The program may include a coordinated, multi-disciplinary program covering such issues as funding, training, and regulatory requirements. NMED hopes that this program will combine elements of already existing efforts.
- Providing funding to TA providers for on-site training for groups of small systems.
- Providing funding for initial planning and preliminary engineering reports for systems serving less than 3,300.
- Coordinating with the State Engineers office to standardize the resolution of water rights issues.

Future efforts include reviewing the legal definition of PWS to determine if changes are needed regarding the types of systems eligible for funding, to encourage partnerships, and to prevent inappropriate encroachments.

2. Encouraging the Development of Partnerships Between PWSs

The Department currently includes material on consolidation as part of its training program curricula. NMED also coordinates with regional planning associations to encourage partnerships, consolidation, and regionalization.

During the next three years, NMED plans to:

- Give priority funding to small system initial capital improvement plans which consider consolidation.
- Require that regionalization options are part of Preliminary Engineering Reports.
- Encourage and facilitate the development of model legal agreements for the regional management of PWSs.
- Provide one-time seed grants ($10,000 maximum) to regional entities planning to develop partnerships that will enhance long-term TMF capacity.
- Establish a pilot program with the New Mexico Finance Authority to assist several troubled systems by facilitating partnerships between water systems. This will be an incentive-based program that will reward systems for consolidation and regionalization activities.

3. Assisting PWSs with the Training and Certification of Operators

NMED contracts with industry associations and agencies for operator training and on-site TA. The Department plans to improving the existing operator certification program by increasing the frequency of training sessions and the number of on-site or regional training opportunities, and by focusing on the needs of small systems.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Using FY 2000 data, NMED will establish a baseline from which to measure improvements. NMED will examine SNC lists, notices of violation, MCL violations, sanitary surveys and Comprehensive Performance Evaluations, Consumer Confidence Report compliance rates, the number of training certificates issued to board/council members and operators, the number of TA projects provided, and the number of partnership grants and construction loans provided to PWSs. The Department will examine the information annually and compare the results from year to year.

E. §1420(c)(2)(E): Identification of Stakeholders

In order to identify interested stakeholders, the Department complied an extensive list of organizations and agencies with ties to the drinking water industry including: drinking water associations; private industry; engineering firms; public interest groups; Federal, State, and local government agencies; and PWS owners and operators. Personal invitations to attend stakeholders meetings were mailed to each individual or group. Meetings were held throughout the State and several were combined with other conferences, such as the NM Rural Water Association annual Statewide Technical Training Conference, in an effort to include other interested parties not identified on the original list.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

New Mexico's Capacity Development strategy permits the Department to identify and assist troubled systems and to address those that present the highest public health risk. NMED will initially focus on water systems serving fewer than 3,300 people. The partnership, operator certification, and compliance programs which are currently available, coupled with new initiatives, will ensure continued assistance to PWSs in the State. Finally, continued stakeholder involvement through the Drinking Water Bureau Advisory Group, will enable the Department to receive feedback on programs and initiatives, make improvements to the strategy, and focus on assisting those systems most in need of TMF improvements.

IV. Implementing the Strategy and Evaluating Progress

NMED had divided the strategy into three phases: those activities that are currently being implemented that may need improvement, additional activities that will be developed and implemented within the next three years, and future initiatives.

New York

I. Solicitation and Consideration of Public Comments

The New York State Department of Health (NYSDOH) formed a Steering Committee comprised of a small group of individuals with a working knowledge of capacity development issues. The Steering Committee members met twice to define a process through which the strategy would be developed and to identify additional stakeholders that should participate in that process.

NYSDOH convened a Stakeholders meeting by contacting and inviting the stakeholders and interested parties identified by the Steering Committee. The Stakeholders were asked to participate in the development of the strategy by participating on the Criteria and Assessments Working Group, the Barriers and Incentives Working Group, or the Capacity Enhancement Working Group.

The Working Groups reported directly to the Stakeholders Group which provided recommendations to NYSDOH. Based on a recommendation from the Stakeholders group, the Department decided to present a Draft strategy to the public. After a series of 14 public meetings used to solicit public comment on the Draft strategy, NYSDOH provided responses to comments and incorporated the ideas and suggestions of the public into the strategy where appropriate.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

The Criteria and Assessment Working Group established criteria for identifying systems lacking TMF capacity, a five-step method for prioritizing those systems, and criteria to evaluate the TMF capacity of a PWS. NYSDOH adopted the evaluation criteria and method for prioritizing systems and is working with other State agencies and the local health departments to identify systems lacking TMF capacity.

The criteria that NYSDOH (and other State Agencies) will use to identify systems with inadequate capacity include those systems:

- In significant non-compliance.
- In violation of an MCL, treatment technique (TT), or major monitoring requirement.
- In violation of significant sanitary code requirements.
- With potential MCL violations due to upcoming regulatory changes or trends in contaminant levels.
- Needing source water protection (identified through a source water assessment).
- Applying for DWSRF assistance.
- With significant deficiencies (identified through a sanitary survey).
- With fiscal concerns (identified though annual financial reporting requirements).
- Applying to become a new PWS within a municipality that already has a water district.
- With repeated emergency outages or are unable to respond to a specific emergency.
- Requesting assistance to improve capacity.

NYSDOH in conjunction with the County and Local Health Departments will assign a priority level to those systems needing assistance. NYSDOH's method of prioritizing systems includes:

- Systems having a critical need (SNCs, MCL violators, or repeated emergency outages).
- Systems having a serious need (TT, major monitoring or significant sanitary code violators, facing significant potential violations, or with sanitary survey deficiencies).
- Systems demonstrating a need although not critical or serious.
- Systems that request assistance.
- All other PWSs.

Once the systems are identified and prioritized, NYSDOH will coordinate system self-assessments to evaluate the current status of the system, determine the needs of the system, and identify the type of assistance that would best serve those needs.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Barriers and Incentives Working Group identified 320 factors at Federal, State, and local levels that enhance or impair capacity. The Group ranked and prioritized the 165 factors that impair capacity and provided short term (within the next year) and long-term solutions to a number of factors. A prioritized list of short-term barriers and their proposed solutions are listed below:

- Lack of formal coordination among funding organizations could be overcome by creating a committee that would, on a regular basis, bring together the various funding organizations. This unified group would develop a consistent approach to providing funding and financial assistance.
- Public lack of knowledge on capacity issues could be overcome by providing incentives for participation in training opportunities and providing public outreach and education.
- The lack of up-front money for project engineering and planning could be overcome by providing support for, or making, short-term grants or loans.

Over the next few years, NYSDOH should: simplify overly burdensome rules and regulations, provide training and assistance to increase understanding of regulations, encourage PWSs to periodically review their rates, review community financial statements in order to identify fiscally stressed communities, review rate structures of DWSRF applicants, and develop rate setting and rate review guidelines.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Capacity Enhancement Working Group adopted the *Capacity Enhancement Resource List* (*The List*) which identifies and describes the programs, services, tools, and other resources that are available to assist PWSs. A companion Users Guide helps those that are unfamiliar with water systems operations find appropriate resources. NYSDOH will use *The List* to match the needs of each system to existing assistance programs.

The Department, in conjunction with City and County Health Departments, State Agencies, and TA providers, will assist systems in complying with the NPDWRs through already existing regulatory and financial programs, and activities such as the Sanitary Survey and Comprehensive Performance Evaluation (CPE) Programs, Small Water System/Self-Help Program (provides guidance to communities

on project alternatives, costs of chosen and alternative projects, consultant selection, project priorities etc.), Source Water Assessment and Wellhead Protection Program, Public Service Commission (PSC) activities, enforcement activities, and training programs.

2. Encouraging the Development of Partnerships Between PWSs

The Capacity Enhancement Working Group recommended to NYSDOH that it should review the law that encourages the merger of school districts to collect information for ideas on how to encourage cooperative arrangements among water systems; provide systems with grants or low interest loans for the planning, legal, and engineering activities involved in restructuring; and more actively encourage the formation of cooperatives.

3. Assisting PWSs with the Training and Certification of Operators

The Department has updated its operator certification regulations to reflect the minimum required by the 1996 SDWA Amendments. NYSDOH will continue to require operators to attend ongoing training session in order to maintain their certifications.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Based on the recommendations of the Criteria and Assessment Working Group, NYSDOH will use compliance data, sanitary survey and CPE data, and information gathered from the capacity evaluation to establish a capacity baseline for each system. NYSDOH will also measure improvements by examining whether the system has corrected previous violations and is currently in compliance, has corrected deficiencies identified through a sanitary survey or CPE, and has demonstrated improvements in capacity as compared to a previous evaluation.

E. §1420(c)(2)(E): Identification of Stakeholders

NYSDOH convened a small group of individuals with some background in capacity development issues to define the process of developing the strategy, and to identify additional stakeholders. This Steering Committee identified an extensive list of potential stakeholders and interested parties that NYSDOH invited to form a Stakeholders Group. The invitees were drawn from Federal, State, and local governments; water providers; associations; environmental organizations; public interest groups; and technical service providers.

To ensure the input of many interested parties, NYSDOH also conducted a series of statewide public workshops. Over 4,000 invitations were sent to potentially interested parties and the Stakeholders were encouraged to invite other interested individuals and groups.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

NYSDOH has adopted criteria for identifying which PWSs are in need of assistance and a priority ranking system. The identification and ranking of systems will ensure targeted assistance to those systems with the greatest needs. A system that meets any one of eleven criteria will be evaluated, in

order of priority, by NYSDOH, a County Health Department, or another State Agency. The assessment consists of the completion of a capacity evaluation form, and a review of compliance data and results from a recent sanitary survey or CPE. NYSDOH has also adopted criteria for evaluating the capacity of PWSs, and will use these criteria to set a baseline on which to measure improvements, identify the type of assistance required by the PWS, and identify the available resources.

The Department has many existing programs through which it can provide technical and financial assistance. There are many State, County, and Local agencies that provide assistance to systems. NYSDOH acts as the coordinator of capacity enhancement activities and has asked the other State agencies, and its partners, to provide information on specific system needs.

IV. Implementing the Strategy and Evaluating Progress

NYSDOH plans to continue using a Stakeholder process to review the strategy and its implementation. The Department also plans to work with its many partners in implementing the capacity development strategy including: City and County Health Departments, PSC, Environmental Finance Center, Office of the State Comptroller, Department of State, Department of Environmental Protection, New York State Association of Regional Councils, New York Rural Water Association, Rural Community Assistance Program, Tug Hill Commission, and USDA Rural Development. NYSDOH and its partners will work together to identify systems in need of assistance and then provide targeted assistance that will be both efficient and effective. Any State agency or the State's partners can accept a formal request for a capacity evaluation ensuring wide access to the assistance the State can provide.

North Carolina

I. Solicitation and Consideration of Public Comments

North Carolina's Department of Environment and Natural Resources (DENR) invited potentially interested parties and stakeholders to participate on a Capacity Development Advisory Committee. The Committee met five times between October 1998 and March 1999. At each meeting, the Committee reviewed draft proposals; and provided input, recommendations, and direction on the development of the capacity development program. The Committee also reviewed draft proposals and rules prepared by DENR's PWS Section.

In order to develop and implement an effective capacity development program, DENR had to promulgate new rules. The Department presented the proposed rules to the Commission for Health Services (CHS). The public was invited to attend the meeting and DENR mailed a notice to all CWSs, NTNCs, and to a list of professional engineers. The PWS Section received no public comments.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DENR will identify systems in need of TMF assistance by using the following tools:

- The State's SNC list.
- Sanitary surveys and TA.
- Administrative penalties.
- TA from North Carolina's Rural Water Association (NCRWA).
- Through examination and approval of engineering plans and specifications and the completion of a Water System Management Plan required of all systems planning to alter or expand existing infrastructure.

The State does not provide information on the methods or criteria that will be used to prioritize systems.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DENR identifies the State's primary regulations as factors that encourage the development and maintenance of capacity in PWSs and does not identify factors that impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DENR will continue to implement many existing programs and activities to assist systems with meeting applicable standards and monitoring requirements. The revised *Rules* will play a large role in assuring system compliance since any system wishing to alter or expand infrastructure must first receive approval from the Department. Approval is contingent upon the submission of a Water System Management plan

that includes managerial and financial information, and engineering plans and specifications. The State will use this information to identify system deficiencies and to target needed assistance.

DENR recently mailed a Monitoring Status & Sampling Schedule report to each CWS and NTNCWS. The report provides the dates of last compliance samples and when the next samples are due, and entry point identification codes and the frequencies that each entry point must be tested. System officials were asked to verify and change any incorrect information, and to return the report to the Department.

DENR also recently began providing Compliance Inspection Reports (i.e. field generated Notice of Violation) to streamline the inspection process, has used a DWSRF set-aside to fund three full-time Environmental Technician positions, and has initiated enforcement and oversight activities on transient systems, revised the administrative penalty matrix to provide a greater deterrent, and entered into a contract with the North Carolina Rural Water Association to proved TA to small water systems.

2. Encouraging the Development of Partnerships Between PWSs

Systems must include a consideration of alternative plans for meeting water supply requirements in their Engineering Reports.

3. Assisting PWSs with the Training and Certification of Operators

Four State agencies, North Carolina Water Works Operators Association, NCRWA, North Carolina American Water Works, and PWS Section, currently work cooperatively to train operators.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DENR will gather the following data to establish a baseline and will evaluate it on an annual basis to measure improvements:

- The number of systems with approved plans and specifications.
- The number of systems with a complete Water System Management Plan.
- The number of systems with a submitted engineer's certification.
- The number system projects with a submitted owner's certification.
- The number of systems with appropriate certified operator in responsible charge.

DENR will also track the number of water supply intakes with complete Wellhead Protection Plans and/or Source Water Assessments. The Department will evaluate trends.

E. §1420(c)(2)(E): Identification of Stakeholders

In May 1995, DENR established a Viability Task Force to restrict the proliferation of new nonviable systems and to enhance the viability of existing systems. Using information from the Task Force, the PWS Section created a list of potentially interested parties and stakeholders. The PWS Section sent a letter to everyone on this list inviting them to participate in the development of the Capacity Development Program and to serve on the Capacity Development Advisory Committee. The Committee included representatives from State water associations, utilities commissions, engineer associations, home builders associations, and various State government staff.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The work of the Viability Task Force, beginning in May 1995, provided a foundation from which the State's Capacity Development Program was developed. Stakeholders, many of whom were members of the Viability Task Force, provided direction and guidance to DENR during the development of North Carolina's strategy. Based on this input, the Department revised the *Rules Governing Public Water Systems* "to provide the primary components of the strategy to improve the capacity of existing systems." The *Rules*, found in North Carolina's Administrative Code, establish the capacity development program.

IV. Implementing the Strategy and Evaluating Progress

DENR intends to periodically reconvene the stakeholder Committee to gather suggestions and guidance for revisions to the strategy.

North Dakota

I. Solicitation and Consideration of Public Comments

The North Dakota Department of Health (NDDH) held a public hearing to gather input on a draft capacity development strategy. The Department sent personal invitations to interested stakeholders and published an announcement about the hearing in local newspapers. NDDH allowed the submission of public comment for one week following the hearing.

After the hearing, the Department prepared a responsiveness summary which was included in the final strategy document. The Summary detailed all of the comments and how the Department considered them in finalizing the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of TMF Assistance

NDDH developed an identification process based on a number of existing data sources and a prioritization system that assigns points to systems that meet, or fail to meet, certain criteria. Systems are evaluated based on compliance history, monitoring, and operator certification violations; sanitary survey results; and delinquent laboratory payments. Any system earning more than 10 points will be considered a priority system. These system will be asked to complete a self evaluation.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Department identified 24 factors that encourage capacity, and 24 factors that impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Agency has several existing tools which aid systems in complying with State and federal regulations, including working relationships with other agencies and organizations, TA programs, sanitary surveys, and enforcement programs. In response to public comment, the Department is developing a self evaluation which will assess TMF capacity of PWSs and identify areas of capacity improvement.

2. Encouraging the Development of Partnerships Between PWSs

The strategy does not mention a plan to encourage partnerships between PWSs.

3. Assisting PWSs with the Training and Certification of Operators

NDDH currently provides training and certification to PWSs through the operator certification program.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Department will use statistical and compliance data currently monitored by the ND Drinking Water Program to establish a baseline against which it will measure improvements. Specifically, the information the Department plans to use includes the number and type of PWS, population served, compliance history, monitoring and reporting violations, and the State's SNC list.

The Department also plans to track the number of requests for capacity assistance, the number of site visits conducted by the Department, the number of contracted TA site visits, and the number of contracted TA training sessions as a way of measuring improvements to systems. The more capacity assistance provided, the more improvements the State should see in a systems capacity.

E. §1420(c)(2)(E): Identification of Stakeholders

The Department used a list of stakeholders which was developed for other capacity development efforts to solicit comment on the draft strategy. The Department invited several organizations to the public hearing including RWA, North Dakota Water Coalition, North Dakota Water Users Association, PWSs, US Department of Agriculture, Rural Development, North Dakota Department of Public Instruction, North Dakota Parks and Recreation Department, North Dakota State Water Commission, Associated General Contractors of North Dakota, North Dakota Municipal Bond Bank, North Dakota State Plumbing Board, North Dakota Manufactured Housing Association, North Dakota Association of Builders, North Dakota Association of Realtors, North Dakota Bankers Association, Midwest Assistance Program, North Dakota Association of Counties, North Dakota League of Cities, Local and District Health Units, North Dakota Consulting Engineers Council, Consulting Engineers, and Regional Planning Councils.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The NDDH capacity development strategy is a comprehensive tool to assist systems with capacity development related efforts. The prioritization method will enable the Department to rank systems and to provide assistance to those systems which pose the most significant threat to public health. By examining existing information to establish a baseline, the State will identify system deficiencies and provide targeted assistance that will effectively meet the needs of the system. The combination of existing programs with the development and implementation of a self evaluation tool will enable the Department to assist systems with compliance.

IV. Implementing the Strategy and Evaluating Progress

NDDH planned to begin implementing the strategy during August 2000. The Department will prioritize systems and then identify the systems lacking adequate TMF capacity.

In July of 2001, and annually thereafter, the Department will re-prioritize the systems to be able to evaluate the progress of the capacity development program and the effectiveness of the tools used to assist systems.

Ohio

I. Solicitation and Consideration of Public Comments

Ohio Environmental Protection Agency (OEPA) contacted a variety of stakeholders from inside and outside the Agency to form a Workgroup whose purpose was to develop a draft of the capacity development strategy. The Workgroup also identified additional representatives and invited them to participate in a series of meetings. OEPA solicited comments on each element of the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

OEPA will use a Capability Assurance Screening Checklist during sanitary surveys to identify PWSs in need of TMF assistance. The Agency's priorities are as follows:

- First: making sure DWSRF applicants submit capability assurance plans and systems implement the recommendations made during CPEs required under the Enhanced Surface Water Treatment Rule.
- Second: Ensuring that systems implement the corrective actions required by the results of a sanitary survey.
- Third: Negotiating voluntary capability assurance remedies as part of enforcement actions against SNCs.
- Fourth: Tracking and encouraging voluntary implementation of capability assurance recommendations made during a sanitary survey or voluntary CPE.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

OEPA identified 17 factors that encourage capacity and 11 factors that impair capacity. The Agency plans to try to reduce or eliminate the factors that impair capacity by continuing to encourage training; providing TA referrals; and by encouraging networking among systems, industry associations, and State staff.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

The Agency has several existing programs which aid systems in complying with State and federal regulations, including providing TA, developing and disseminating guidance documents, and providing referrals to TA providers and planning assistance. In response to sanitary survey results, the Agency also sends each system a letter which establishes compliance requirements and recommendations to improve compliance.

2. Encouraging the Development of Partnerships Between PWSs

The Agency currently supports many initiatives which encourage partnerships between PWSs. As part of the current program, the Agency works to maintain a positive, open, non-adversarial relationship with water systems, and works with industry associations to encourage networking with, and outreach to, water systems. OEPA plans to continue recommending partnership alternatives to systems that lack capacity, promoting the benefits of cooperation between local communities, and encouraging equitable water service agreements.

3. Assisting PWSs with the Training and Certification of Operators

OEPA will provide regional training seminars for small water systems, lend support to the Operator Training Committee of Ohio, and refer water systems to TA and training providers. The Department is also considering using the operator reimbursement provisions of SDWA §1419(d) to improve the training and certification program.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Agency plans to evaluate improvements to a system's capacity on an annual basis. OEPA will examine the number and percent of enforcement referrals containing capacity provisions, the number and percent of systems passing capability assurance screens, the number and percent of systems in compliance with drinking water rules, and the number and percent of Water Supply Revolving Loan Fund Account (WSLRFA) applicants denied loans due to lack of capacity. Numbers will be compared from year to year.

The State's DRINK database will be used by OEPA staff to track compliance data, and capacity data will be added to the electronic database as they are developed.

E. §1420(c)(2)(E): Identification of Stakeholders

In order to identify interested stakeholders and solicit comments on the draft strategy, the Agency invited several organizations, including: OEPA staff, Public Utilities Commission, AWWA, RWA, Ohio Water Development Association, PWSs, lending institutions, U.S. Department of Agriculture and Housing and Urban Development, Department of Commerce, U.S. Army Corps of Engineers, Ohio Public Works Commission, Ohio Department of Development, Ohio Consumer's Council, Ohio Townships Association, Ohio Municipal League, Ohio Home Builder's Association, Ohio Nursing Home Association, Ohio Hospital Association, Ohio Industrial Association, Great Lakes Rural Community Assistance Program (GRCAP), and League of Woman Voters to a series of meetings which focused on the development of the draft strategy.

OEPA also announced a public comment period in major Ohio newspapers, mailed Workgroup members a copy of the draft strategy, and posted a draft of the Ohio Capability Assurance Guidelines on the State's drinking water Web site.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

OEPA has developed and adopted criteria for ranking PWSs in order to identify and prioritize systems most in need of TMF assistance. Using this methodology, the Agency will address those systems which pose the most significant threat to public health first, and then assist PWSs with TMF deficiencies found as a result of sanitary survey inspections. The Agency also plans to continue using several tools and resources that assist systems with compliance, encourage partnerships, and assist with the training and certification of operators.

IV. Implementing the Strategy and Evaluating Progress

The strategy does not mention specific plans for implementation and future evaluation.

Oklahoma

I. Solicitation and Consideration of Public Comments

The Oklahoma Department of Environmental Quality (ODEQ) invited stakeholders to participate in several capacity development meetings to solicit input on each of the five SDWA §1420(c) elements included in a draft of the State's capacity development strategy. During the last meeting, participants provided input on each of the elements through a series of discussion groups facilitated by The New Mexico Environmental Finance Center (EFC).

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

ODEQ plans to use three already existing lists to identify and prioritize systems in need of TMF assistance. The lists will provide the Department with a description of the system and the types of violations or deficiencies that need to be corrected.

The Department will address systems in the following order:

- Those that pose the most significant threat to public health.
- Those that are not in compliance with SDWA.
- SNCs.
- Those that are not meeting enforcement milestone requirements.
- Those that request TMF assistance.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The stakeholders group and ODEQ identified 11 factors that encourage capacity and 6 factors that impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

To assist PWSs with compliance, ODEQ plans to continue to use its current authorities (e.g., frequent sanitary surveys and small system TA), and to develop and implement new initiatives such as:

- The development of the Area Wide Optimization program. This pilot program is dedicated to optimizing the performance of surface water treatment facilities by optimizing particle removal and disinfection at all filtration plants.
- Establishing an Oklahoma Funding Agency Coordinating Team (FACT). FACT will streamline the funding process and avoid duplication of efforts by several industry associations and State Departments involved with capacity development funding initiatives.

2. Encouraging the Development of Partnerships Between PWSs

DWSRF applicants that include regionalization as a component of the planned project are awarded priority points.

3. Assisting PWSs with the Training and Certification of Operators

Although ODEQ offers several operator certification programs and educational opportunities minor revisions to the operator certification program regulations are necessary. The Department plans to develop these changes and implement them once they are promulgated.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

ODEQ will determine a baseline against which it will measure improvements by gathering information provided in PWS inspection forms and by compiling data from SDWIS and other State databases. The Department will evaluate systems based on a series of key indicators including:

- For surface water systems: total number of monthly turbidity exceedances and the number of quarterly THM exceedance.
- For ground water systems: nitrate and total coliform violations.
- For all systems: the average yearly score each system receives on their system inspection form.

In order to measure improvements, the number of exceedances and violations, and the inspection form score will be compared from year to year.

E. §1420(c)(2)(E): Identification of Stakeholders

ODEQ developed a thorough list of interested stakeholders using a list of groups and individuals who had previously attended capacity development meetings and discussions. The Department sent personal invitations to over 40 State, federal, local, and private organizations to gather information on the Capacity Development strategy. Some of the stakeholders included: Consulting Engineers Council of OK; Department of Agriculture; Department of Commerce; assorted Divisions within ODEQ; EPA Region 6; Indian Health Services; Oklahoma Department of Health; Rose State College; Oklahoma Water Resources Board; selected cities, municipalities, and rural districts; AWWA; CRG; League of Women Voters; Oklahoma RWA; and several selected engineering firms.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

ODEQ believes the responses to each program element constitute a cohesive strategy to improve capacity in Oklahoma PWSs. ODEQ's methods to identify and prioritize systems will enable the Department to assist systems most in need of TMF assistance, improve public health protection, and increase compliance rates. New programs, including the Area Wide Optimization Program and Oklahoma Agency Coordinating Team, are positive initiatives which will aid systems. The addition of new initiatives will serve to strengthen the programs that have been in place for several years.

IV. Implementing the Strategy and Evaluating Progress

ODEQ has already begun to implement several programs including the FACT and Area Wide Optimization Program. The Department plans to maintain contact with stakeholders as the Capacity Development strategy is implemented.

Oregon

I. Solicitation and Consideration of Public Comments

During 1998, the Drinking Water Advisory Committee (DWAC) began developing the State's strategy for assisting existing PWSs in achieving or maintaining capacity. The DWAC is a standing committee of the Oregon Health Division (OHD) formed to assist in the development of new regulations and advise the Division on drinking water issues and Program design and administration. The DWAC developed a *Report of Findings* (the *Report*) which it presented to OHD.

OHD conducted four workshops to solicit public comment on the *Report of Findings*. Invitations were sent to all the PWSs in the State. DWAC combined the comments and the *Report of Findings* into a summary report which was reviewed by a DWAC subcommittee. The subcommittee presented a draft strategy to the full DWAC, which presented recommendations for the design and implementation of a capacity development program to OHD. OHD then revised the draft strategy based on the recommendations of the full DWAC. The revised draft was unanimously accepted by the DWAC.

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

To prioritize systems, OHD is using a risk matrix made up of risk factors relative to compliance problems. There are 6 risk factors: health/water quality, monitoring and reporting, certified operator, sanitary hazards, source susceptibility, and master plan. The specific violations related to each risk factor are assigned a risk level (high, medium high, medium, medium low, and low), and each risk level corresponds to a certain number of points. The systems with higher scores are a higher priority.

OHD applies a weighting factor based on the size of the system.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

In the *Report*, the DWAC identified 67 federal, State and local factors that enhance capacity development; and 58 federal, State, and local factors that impair capacity development. The Committee identified 34 factors that should receive attention. OHD considered the DWAC's recommendations while drafting the strategy.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

OHD's strategy is comprised of 5 programs: the Capacity Assessment Program, Information Services, Training Program, Public Educations Programs, and Outreach Programs. The Division will implement existing programs, and has proposed adding new activities, some of which are described below.

1. Assisting PWSs with Compliance

OHD will conduct capacity assessments to identify system deficiencies, educate operators and water system personnel, and make corrective action recommendations. From the results of the assessment, the State will recommend additional managerial or operator training, TA, and other ways of increasing capacity.

OHD is also planning to expand its existing training programs for managers and administrators of PWSs, engineers, and operators. Additional training opportunities will increase the regulatory understanding of those most intimately involved with the management and operation of the water system. Additional outreach includes the development of:

- Additional guidance documents to help systems prepare emergency response plans and water system plans.
- Advance guides for computer analyses.
- Worksheets and tools to organize and assess problems.
- Management self-evaluations.
- Videos for instructions on water system operations, the cost of producing safe water, public communications, financial training, rates and budgets, water system management, etc.

2. Encouraging the Development of Partnerships Between PWSs

OHD will develop and implement an outreach program whereby knowledgeable employees from large systems would provide assistance to smaller systems. The large systems will enter into an agreement with the State who will provide funding for the outreach. This voluntary program will foster cooperation among systems and encourage the formation of partnerships and other types of cooperative arrangements.

Through the Operator Training Program, the State plans to sponsor interactions among system operators and conduct interactive group meetings, teleconferencing, and problem solving sessions.

3. Assisting PWSs with the Training and Certification of Operators

OHD plans on expanding the current training topics and methods of receiving training (i.e. home study, video, on-line computer, and media training courses).

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

OHD will use the prioritization risk matrix (described above in Element A) to establish a baseline. Those systems at risk will be evaluated through the use of the capacity assessment, and the Division will provide the system with a list of corrective actions. OHD will contact the systems six months after the capacity assessment for a status report, and will conduct a follow-up capacity assessment six months later. The results of the follow-up assessment will be used to re-rank the system using the risk matrix. The ranks will be compared to determine the level of improvement, and whether additional assistance is necessary.

E. §1420(c)(2)(E): Identification of Stakeholders

The DWAC membership represents a broad base of organizations with interests in drinking water including the League of Oregon Cities, Conference of Local Environmental Health Supervisors, Oregon Association of Water Utilities, Consulting Engineers Council, League of Women Voters, Special Districts of Oregon, Oregon Environmental Health Association, Association of Official Analytical

Chemists, Conference of Local Health Officials, American Water Works Association, and water system owners.

DWAC concluded that additional key interest groups should be invited to participate in the development of the strategy. Certain key interest groups were appointed to the DWAC, and those not formally appointed were allowed to attend the Committee meetings.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

OHD's risk matrix will identify those systems most in need of assistance, and establish a baseline against which improvements will be measured, and which will allow the Division to effectively allocate resources. When taken together as a whole, the 5 Programs address TMF capacity issues.

IV. Implementing the Strategy and Evaluating Progress

The State has created three new staff positions for the implementation of the capacity development program, and plans to begin the hiring process after EPA approval of the strategy. A Capacity Development Program Coordinator will be responsible for the overall coordination and implementation of the Capacity Development Programs, including the Information Services Program, Training Program, Public Education Program, and Outreach Program. A Capacity Assessment Coordinator will conduct capacity assessments and an Information Specialist will implement the program elements for the Information Services Program. OHD is planning to issue contracts for the development of training guides and videos, and to conduct the outreach program activities.

OHD has developed a program development and implementation time line that takes into consideration implementation costs and level of effort. The State plans to conduct the initial implementation activities over the next three years.

The success of the program will be measured to some extent by seeing an increase in the percent of the population served by water systems meeting drinking water standards with adequately treated surface water supplies, and with drinking water protection programs. Also, OHD will consider the program a success if the number of systems on the SNC list decreases.

Revisions to the capacity development program will occur through a public participation process and will be presented to the DWAC for consideration.

Pennsylvania

I. Solicitation and Consideration of Public Comments

Pennsylvania's Department of Environmental Protection (DEP) formed a joint Central and Regional Office Steering Committee to develop Pennsylvania's Capability Enhancement strategy. To solicit additional public comment, DEP sent a draft of the strategy to key stakeholders; published a notice in the *PA Bulletin* informing the public that the draft was available for comment; and created an interactive Web site for the Capability Enhancement Program, on which it posted all meetings, position papers, and drafts of the strategy. An e-mail station on the Web site provided "direct and instantaneous public input and response."

DEP also presented the draft and solicited input at Regional Office Roundtables, and at State water industry association meetings and annual conferences. Public comments were summarized and included in the strategy document.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

Pennsylvania's Priority Rating System (PRS) addresses CWSs and NTNCWSs separately. The issue of how to rate transient water systems will be reevaluated as the current program is implemented and additional resources become available. Pennsylvania's Drinking Water Inventory System (PADWIS), an existing database, stores and analyzes the priority rating factors.

PRS uses a two-tiered set of rating factors, both objective (tier 1) and subjective (tier 2) analyses. The objective factors (11 for CWSs and 3 for NTNCWSs) correspond to an assigned point value: the higher a system's numerical score, the greater the noncompliance. After the objective analysis, the highly rated systems are analyzed under the subjective factors including willingness to cooperate with the program, status of any litigation against the system, financial feasibility of improvement, size and type of population served, and special considerations. NTNCs have one additional subjective factor: availability of water to meet demands of customers. Each system is then assigned a category of high, medium, or low priority.

All CWSs and NTNCWSs are rated annually. Each of the six DEP regions must nominate six high priority systems for participation in the Capability Enhancement Program.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DEP identifies PENNVEST, Pennsylvania's Infrastructure Investment Authority, as a program that encourages capacity. The program provides low-interest loans and grants, and is a source of millions of dollars for needed improvements. DEP also identifies demographics, local government organization, past resource development, and State program practices as impairments to capacity development.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DEP verifies the accuracy of the PRS data and performs a Comprehensive Evaluation of each high priority system, identifying capability enhancement needs and potential service providers. Following this evaluation, an Assistance Implementation Plan (AIP) or "a well conceived action plan for change" is developed. An AIP, which can be either "site-specific" or "global" (i.e., regional or Statewide), addresses the system's needs, and transfers the services to meet those needs. An AIP will contain, among other things, general system information and history, verification of PADWIS data, evaluation of PRS rating factors, regional and district office recommendations, discussion of TMF issues, capability enhancement needs, a correction plan, service providers, and a schedule for delivery of services.

The Division of TA and Outreach delivers improved training and assistance programs to system owners and operators. In addition, the expanded role of the Environmental Training Partnership provides a broader base of on-site assistance to water supplies. Contracts with Pennsylvania Rural Water Association and the Rural Community Assistance Program provide new assistance services, including data collection to support financial needs assessments. Other efforts by DEP Regional Training Teams, AWWA, Pennsylvania Small Towns Environmental Program, Business Planning Program, and Engineering Services Contract Program also assist PWSs with compliance.

2. Encouraging the Development of Partnerships Between PWSs

The Consolidation and Construction Grant program provides grants to eligible systems to implement a consolidation or regionalization plan. In addition, regionalization study grants have made regional feasibility studies possible.

3. Assisting PWSs with the Training and Certification of Operators

The amended Operator Certification Act improves training and testing, and requires continuing education. It also assists PWSs through the development of standards for training providers, the support of a basic training center, and the development of distance learning capabilities. The ability to provide Web based training will improve the capabilities of systems throughout the State.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Each year, every CWS and NTNC system in the State will be rated numerically by objective TMF factors (tier 1) in Pennsylvania's PRS (described in Element A). By comparing one year's total point value to the next year's total, DEP is able to determine if a system's assistance needs are increasing or decreasing. If the program is successful, the priority rating values should decrease.

DEP will also use the PRS to measure regional and statewide improvements. Regions are measured by two factors: "number of hits," or number of times an answer to a rating factor generates rating points; and "total points," or sum of all points assigned for a region for a specific factor. In this manner, DEP is able to determine if a region's needs are increasing or decreasing. Totaling the numbers for all regions

will determine the State's overall needs. The "global" approach can identify overall program weaknesses, and will allow the Department to develop programs that address common needs.

E. §1420(c)(2)(E): Identification of Stakeholders

Pennsylvania's DEP identified interested stakeholders including government organizations and community based associations. The principal contributor to the public participation process was the TA Center for Small Water Systems. The Center's membership represents a broad view of the State's water suppliers. In addition, the joint steering committee included regional program managers, district supervisors, and permit engineers from all six DEP regions. The Committee also included representatives from related Divisions within the Bureau of Water Supply Management.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DEP's recent initiatives and existing programs provide a solid framework to implement Pennsylvania's Capability Enhancement strategy. The strategy itself includes a PRS, a Comprehensive Evaluation of targeted systems to further define their assistance needs, an AIP to implement a successful program, and an annual reevaluation of targeted systems to measure improvement or lack of success.

IV. Implementing the Strategy and Evaluating Progress

DEP hired three new full-time Capability Enhancement Facilitators (CEFs), each of whom will administer the Capability Enhancement Program. Working with the regional staff, the CEFs will determine the capability needs of a drinking water system, design a plan to deliver services, identify assistance providers, coordinate and oversee the delivery of services, and determine if a system's capabilities have been enhanced. DEP proposes to use SRF set-asides to finance the three CEF positions and foster partnerships with assistance providers who offer crucial tools for the implementation aspects of the Program.

In addition, the joint Central and Regional Office Steering Committee is responsible for the oversight and coordination of the Program's implementation. During implementation, appropriate changes will be made based on solicited public comment. The Steering Committee will evaluate the successes and shortcomings of the program during the initial implementation year.

Puerto Rico

The Department of Health (DOH) implements the drinking water program for the Commonwealth of Puerto Rico. In Puerto Rico, there are 203 community water systems owned and operated by the Puerto Rico Aqueduct and Sewer Authority (PRASA), and 283 community and non-community water systems not owned by PRASA (non-PRASA). The PRASA systems serve 97 percent of the population and the non-PRASA systems serve 3 percent of the population. DOH began to implement a compliance strategy for non-PRASA water systems in 1996, and one for PRASA systems in 1997. These strategies form the core of Puerto Rico's capacity development strategy. Since they are markedly different, each section below has separate subsections for the PRASA and non-PRASA strategies.

I. Solicitation and Consideration of Public Comments

Non-PRASA strategy

The original non-PRASA compliance strategy was developed by a committee that included Federal, State, and local government agencies; private and non-profit public water systems; and consumers. The Committee began meeting in 1996 and has met monthly since then. In April 2000, the Committee discussed the SDWA §1420(c)(2) elements to be included in a capacity development strategy. The Committee had 30 days to comment, after which it met again to evaluate comments.

In June, a public notice was published in a major newspaper announcing a 30-day public comment period. Following review of the comments, DOH prepared a responsiveness summary and finalized the strategy.

PRASA strategy

DOH sent PRASA a letter in April 2000 explaining the Department's position on the SDWA §1420(c)(2) elements, and provided 30 days for PRASA to comment. In June, DOH sent the draft strategy to PRASA for comment. DOH followed the same public notice schedule and procedures described above.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

Non-PRASA strategy

Puerto Rico has a multi-layered method to prioritize non-PRASA water systems. First, DOH reviews the sampling, inspections, and sanitary surveys data to identify systems that may be in need of assistance. DOH also considers the water source (ground or surface water) and whether the water is obtained from PRASA or non-PRASA connections.

The non-PRASA enforcement strategy strives to reduce the number of significantly noncompliant systems and improve water quality for as many people as possible in the shortest time span. DOH and US EPA share enforcement responsibilities: EPA issues administrative orders for surface water systems

and DOH does so for ground water systems. Systems are categorized based on the number of people served and the amount of time required for compliance. Priority for action is as follows:

- Systems having PRASA and non-PRASA water sources.
- Non-PRASA communities near PRASA communities.
- Non-PRASA communities that disinfect, but obtained positive bacteria samples.
- Non-PRASA communities that received educational and TA.

PRASA strategy

Priority is given to water systems in violation of the surface water treatment rule and those with acute, primary, or action level violations. The next priority is systems with deficiencies that present a serious risk to public health.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

Non-PRASA strategy

DOH identified 23 Federal, State, and local factors that impair capacity development and 18 factors that encourage it. Impairments include the island's topography, lack of trained personnel and resources at the system level, and lack of coordination with other agencies such as U.S. Geological Survey and the Fish and Wildlife Service during the permitting process. Factors that encourage capacity include staff dedicated to non-PRASA systems; and the public-private Partnership for Pure Water (PPW), which provides disinfection equipment at a low cost.

PRASA strategy

DOH identified 17 Federal, State, and local factors that impair capacity development, and six factors that encourage it. Impairments include the location of sources in relation to system location, lack of knowledge of disinfection equipment and processes, and inadequate training leading to poorly operated and maintained systems. Factors that encourage capacity include the formal enforcement process, DOH staff dedicated to PRASA systems, and an interagency committee of government agencies and private entities involved with PRASA systems.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Non-PRASA strategy

DOH has administered the non-PRASA strategy since 1996. DOH established the Interagency Non-PRASA Committee to provide ongoing review of the strategy and its implementation. DOH also works with the PPW to reduce significant noncompliance. DOH awards grants and contracts for pilot and demonstration projects, TA, and disinfection equipment.

PRASA strategy

Similarly, DOH has been implementing the PRASA strategy since 1997. DOH uses grants and loans to provide technical and educational assistance, and to purchase and install disinfection equipment.

To facilitate implementation of a compliance and enforcement strategy, DOH established comprehensive performance evaluation (CPE) teams. CPEs are used to determine whether a system is unable to comply with the regulations. PRASA has received financing in excess of $1.3 billion from several sources to implement a capital improvement program (CIP). The CIP is a five-year program designed to modernize PRASA's physical infrastructure, which will significantly improve compliance.

2. Encouraging the Development of Partnerships Between PWSs

Where non-PRASA systems using a non-PRASA source of water are located in or near communities that also have a PRASA water source, DOH encourages them to eliminate the non-PRASA source, if the PRASA source can absorb the additional demand.

3. Assisting PWSs with the Training and Certification of Operators

Non-PRASA strategy

DOH prepares educational, technical, and operational manuals; and conducts training for non-PRASA systems. It also contracted with the University of Puerto Rico to develop a reference manual. DOH will develop an operator certification program and additional training and guidance for small system operators.

PRASA strategy

PRASA has an independent training program for its operators to ensure that they are trained according to the classifications of their treatment plants.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Non-PRASA strategy

DOH will establish a baseline against which it will measure system improvements by examining the system's compliance (by source, with various SDWA rules) and general operation (process control requirements: equipment and maintenance; and managerial, financial, staffing, and training issues). Each of the measures is assigned a weight. DOH will determine progress by calculating an annual weighted average and comparing it to the initial measurement.

PRASA strategy

PRASA will use the same general approach, but will not distinguish among water sources. PRASA also uses a slightly different formula to calculate the weighted average.

E. §1420(c)(2)(E): Identification of Stakeholders

DOH convenes a monthly meeting of the non-PRASA Strategy Committee. The Committee widely represents government agencies, water systems, and consumers. Similarly, an Interagency Committee meets regularly to discuss PRASA issues. The membership of both Committees has expanded over time.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DOH believes the elements it has selected for its PRASA and non-PRASA programs constitute strategies that will be successful in achieving the goal of compliance with applicable statutes and regulations.

IV. Implementing the Strategy and Evaluating Progress

Non-PRASA strategy

DOH will continue to monitor progress through the writing of an annual Achievements Report.

PRASA strategy

DOH will continue to demonstrate improvements in a series of reports submitted to EPA.

Rhode Island

I. Solicitation and Consideration of Public Comments

The Rhode Island Department of Health (DOH), Office of Drinking Water Quality (ODWQ), solicited public comment at an Earth Day/Drinking Water Week festival; through the distribution of a Strategy brochure along with a system Self-Assessment Survey; and via e-mail, "Usenet news groups," and the web.

ODWQ also formed a Capacity Development Advisory Committee which met twice: once to discuss the factors that encourage and impair capacity; and again to review the results of the Self-Assessment Surveys, and to examine the draft Strategy and the Public Education Program. ODWQ posted the draft materials, the Self-Assessment Survey results, and drafts of the Strategy on the DOH Web site. Comments and recommendations were incorporated into the Strategy where appropriate.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

ODWQ identifies systems in need of TMF assistance by examining the following on an annual basis:

- Compliance data (the SNC list, Sanitary Survey results, and staff knowledge).
- DWSRF data (application materials, the project priority list, disadvantaged community status, and Intended Use Plans).
- PWS data (consumer confidence reports, source water assessment program data, operator certification, and consumer complaints).
- Annual license renewal data.
- Self-Assessment Surveys.

With this data, ODWQ assigns each system a priority level:

- Level 1: No assistance recommended. Systems currently in compliance that will be monitored to ensure continued compliance with regulations.
- Level 2: Assistance recommended. Systems currently in compliance that would benefit from assistance.
- Level 3: Assistance required. Systems not in compliance that can be brought into compliance via assistance. DWSRF funding will be used to assist these systems.
- Level 4: Enforcement required. Systems not in compliance that cannot be brought into compliance via assistance. Enforcement action will be taken against these systems.

Level 3 systems that can be brought into compliance are the highest priority. Level 2 systems that can become Level 1 systems with technical or financial assistance are of next highest priority.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The Capacity Development Advisory Committee identified 49 factors that encourage capacity. These include current programs, the State's small size, and plan review requirements. The Advisory

Committee also identified 52 factors that impair capacity, including water quantity, urban sprawl, consumer apathy, and complex regulations.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

ODWQ and the Advisory Committee identified the current sampling program, the new system application process, the source water assessment program, and the DWSRF program, as existing initiatives that help systems achieve and maintain compliance. ODWQ will modify the sanitary survey process to include an assessment of all TMF capabilities. ODWQ will take advantage of existing programs to expand public education and conservation.

One future tool that will assist systems with compliance is the new licensing and enforcement management software program ("License 2000") that allows DOH staff access to a PWS's license applications, license renewal information, compliance status, public complaints, and accounting. Sample and Sanitary Survey results, along with operator certification can also be tracked through this new program. Other new initiatives include the Self-Assessment Survey, DWSRF Outreach for small systems, and consumer confidence reporting assistance for small systems. ODWQ intends to publish a newsletter that focuses on the "small and very small" PWSs in the State.

2. Encouraging the Development of Partnerships Between PWSs

The Self-Assessment Survey includes questions about a systems interest in local or regional partnerships and mergers.

3. Assisting PWSs with the Training and Certification of Operators

The State's current operator certification program assists PWSs with the training and certification of operators. Additional PWS training and TA, a potential future initiative, will be used to better assist system operators.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

ODWQ ranks all existing systems and new TNCWSs by the methods described in Element A. The August 2000 data will serve as the baseline against which the State will measure improvements. All system data and information will be stored in the new License 2000 system. ODWQ anticipates that through this system, trends of violations and consumer complaints will "quickly become apparent."

Improvements are indicated by progression from a higher priority level to a lower one. Continued ability to maintain a high level of compliance, especially as new regulations evolve, also indicates improvement. ODWQ will send follow-up Self-Assessment Surveys to all systems in September 2001 and September 2003. Improved responses from PWSs will indicate greater awareness and understanding of capacity development. Improved staff awareness of capacity development within the DOH and other State and federal agencies also indicates program success. Finally, ODWQ notes that a greater

percentage of participation in TA programs will indicate improvements in capacity development within the State.

E. §1420(c)(2)(E): Identification of Stakeholders

ODWQ held a "brainstorming session" to develop the initial stakeholder's list. The Office used the PWSs inventory database to contact PWSs and invited the Source Water Assessment Program Advisory Committee to become members of the Capacity Development Advisory Committee. The Advisory Committee included representatives from industry associations, ODWQ staff, regional EPA, water supply boards, environmental consultants, and others. ODWQ also conducted a web search to identify additional public interest and conservation organizations.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

ODWQ will prioritize and rank systems every year to allow for targeted and timely assistance. With their strategy, Rhode Island hopes to "shift PWS attitudes away from a reactive, 'bare minimum required by regulation' mind set towards a pro-active, customer service attitude." Throughout the development of the State's strategy, ODWQ collected suggestions, comments, and feedback from a wide cross-section of State drinking water stakeholders.

IV. Implementing the Strategy and Evaluating Progress

In general, ODWQ notes that the State's record of providing safe drinking water, along with a high public awareness of environmental protection and the beneficial "hands-on relationship" between PWSs and State regulators, help with all aspects of capacity development within the State. ODWQ mentions that 60% of the State's residents receive their water through one single water system, while the vast majority of other systems in the State are TNCWSs. Rasing awareness among TNCWSs is a challenge for ODWQ. Thus, the State's new programs set out to focus on capacity development awareness, education, and communication.

Rhode Island's Capacity Development strategy will be implemented primarily by ODWQ, with assistance from other State agencies and TA providers. The implementation of the State's strategy will be ongoing. As work continues on the strategy and as ODWQ receives feedback on the programs, the strategy will continue to evolve. In addition to the annual data measurements that will measure system improvements, Self-Assessment Surveys will be sent out to PWSs in May 2001 and May 2003 to help evaluate the success of the Capacity Development Strategy.

South Carolina

I. Solicitation and Consideration of Public Comments

The South Carolina Department of Health and Environmental Control (Department) began to consider drinking water system "viability" when making permitting decisions before the 1996 SDWA Amendments. In the spring of 1995, the Department assembled an Ad Hoc Committee to assist with developing a set of criteria with which to evaluate the viability of new systems and a strategy with which to enhance the viability of existing systems. Twenty-two agencies, organizations, and governing bodies were represented on the Committee. The full Committee met a total of six times and developed a set of recommendations for the Department. Committee members were requested to assist with the development of new regulatory language necessary to implement several of the recommendations. The proposed revisions were made available for public comment and the Committee was asked to help the Department address public comments.

South Carolina continuously solicits ideas from the public on ways to improve its capacity development strategy. The strategy is posted on the Department's Website (http://www.scdhec.net/water/) and is periodically featured in newsletter articles.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

South Carolina relies on its sanitary survey program to identify and prioritize PWSs most in need of improving TMF capacity. During the sanitary survey, the Department's inspector completes an evaluation form, and then assigns a rating of "satisfactory," "needs improvement," or "unsatisfactory." An unsatisfactory rating indicates that there is a lack of TMF ability to consistently comply with State drinking water requirements. Currently, sanitary surveys are conducted on a periodic basis. The Department's goal is to conduct annual surveys on CWSs and NTNCWSs and survey all other systems every three years.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

South Carolina has several requirements in place that enhance the capacity of its public water systems. These include the sanitary survey program through which the Department identifies the systems most in need of improvements, a mandatory construction and operating permit process, and a business plan requirement.

The Department identified a lack of coordination between State and local governments as an impairment to capacity. To help address this problem, the State made regulatory changes requiring communication between the Department and the Public Service Commission, and the Department and local governments.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

If the overall rating on a system's sanitary survey is "unsatisfactory," the system owner will be required to develop and submit a business plan as a condition of the operating permit. The plan must demonstrate how the system will be managed in the future to ensure its long term viability. Technical assistance with developing a business plan is provided to small systems (serving up to 10,000), and a detailed guidance document was prepared to help all public water systems develop a plan. DWSRF set-asides will provide funds for business plan assistance for small systems.

South Carolina has also prepared a series of detailed guidance documents to help water systems obtain necessary permits and evaluate their own capacity. These documents, along with the business plan guidance, are available on the Department's Website (http://www.scdhec.net/water/). The Department, in conjunction with other State agencies and organizations, has developed a public education strategy which will include the distribution of benchmark information, training on how to prepare a business plan, and sanitary survey training.

South Carolina's State-run monitoring program for public water systems is yet another way in which the State is assisting systems with compliance. Although the program has been largely funded through an annual fee charged to each water system, each year the Department requests an appropriation from the General Assembly to reduce and/or eliminate the annual fee.

2. Encouraging the Development of Partnerships Between PWSs

The Department encourages water systems to utilize economies of scale by assigning a higher ranking on the DWSRF project priority list to projects involving consolidation or regionalization.

3. Assisting PWSs with the Training and Certification of Operators

In accordance with South Carolina Environmental Certification Board (Board) regulations, "every two (2) years, [operators must] provide evidence of having completed twelve (12) hours of relevant continuing education." The Board provides useful information on operator certification to system owners and operators through its Website (http://www.llr.state.sc.us/ecb.htm).

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

The Department will examine a system's business plan, including annual financials to establish a baseline against which to measure improvements. The Department will also analyze compliance rates and sanitary survey results.

E. §1420(c)(2)(E): Identification of Stakeholders

The Department invited numerous State agencies and other governing bodies, industry associations, and relevant private organizations to participate on the Ad Hoc Committee. A total of 22 were agencies and organizations were represented.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The primary focus of the State's strategy is to encourage, and in some cases require, public water systems to develop business plans. The State's TA efforts and guidance documents help systems to create sound business plans and to evaluate TMF capacity.

All of the program elements in South Carolina's strategy were developed through an extensive public involvement process and the Department has been implementing some of the elements for several years. The State is confident that these factors working together have helped to create a sound capacity development strategy for existing water systems.

IV. Implementing the Strategy and Evaluating Progress

The Department will look for a reduction in the number of unsatisfactory sanitary surveys for tangible evidence of the program's success. Compliance with the monitoring and reporting requirements of the State Primary Drinking Water Regulations will also be used to help measure the success of the program.

South Dakota

I. Solicitation and Consideration of Public Comments

The South Dakota Department of Environment and Natural Resources (DENR) formed a Capacity Development Technical Advisory Group (CDTAG). This group provided public input, proposed criteria that existing systems should strive to meet, and discussed and commented on each of the five SDWA §1420(c)(2) program elements. DENR posted meeting summaries, materials presented at the meetings, and the draft Strategy on a Web site developed for CDTAG and the public. A press release notified the public that the draft was available for review and comment.

Two public meetings, held over the State's Rural Development Television Network, presented a draft of the strategy to the public. All relevant comments were listed in South Dakota's Capacity Development strategy for Existing Public Water Systems.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

CDTAG specified information that DENR could use to identify systems in need of assistance including DENR's Drinking Water Database, SNC list, "Pre-SNC" list, Sanitary Survey information, DWSRF loan applications, State Water Plan applications, Consumer Confidence Reports, Source Water Assessments, reports from TA providers, and the Municipal Leagues' Water Facilities Report.

CDTAG modified the prioritization system developed by the State of Oregon to better fit the needs of South Dakota. The prioritization system uses the categories listed below to rank systems most in need of assistance:

- Health/Water Quality (information currently in database).
- Monitoring and Reporting (information currently in database).
- Certified Operator/Operations (information currently in database).
- Sanitary Hazards (information to be collected from sanitary surveys).
- Financial Capacity (information to be collected by a financial survey sent to all systems).
- Source Susceptibility (information to be collected from source water assessments).

Within each category are numerous factors that when matched to a system's current situation will result in a risk classification of high, medium high, medium, medium low, or low. DENR prioritized systems in March 2001 using the first three categories and financial data.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

CDTAG identified 18 factors that enhance capacity, including DENR's Drinking Water Program, Water Rights Program, Water and Waste Funding, and the Ground Water Quality Program. CDTAG identified 44 factors that impair capacity, including impairments at the federal, State, and local levels.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

In order to provide needed assistance, DENR contacts high risk systems and obtains further information through an enhanced sanitary survey (which includes financial and managerial information) or a capacity assessment worksheet. DENR will also continue to provide training and TA programs, issue enforcement actions, and conduct source water assessments.

Future initiatives include public education, or more specifically, news releases, water bill inserts, public meetings, and education through public schools. In addition, DENR plans to implement board member training on financial and managerial issues, and to develop a Water System Planning Manual to address all capacity issues and a Drinking Water Handbook on statues and regulations. DENR plans to use DWSRF set-asides to provide more technical and financial assistance.

2. Encouraging the Development of Partnerships Between PWSs

DENR notes that their cooperation with other organizations fosters the development of partnerships between PWSs.

3. Assisting PWSs with the Training and Certification of Operators

DENR will continue to implement the State's Operator Certification Program.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DENR will use the following information to establish a baseline against which it will measure improvements:

- Drinking Water Program benchmarks (measured each quarter): number of systems, population served, systems with MCL and monitor/reporting violations, and systems with no violations.
- SNC list.
- Number of certified operators.
- Volume of capacity activity: number of capacity assessments completed, number of TA site visits, number of training sessions given, and number of "enhanced" Sanitary Surveys completed.

The information will be periodically examined to determine if the program is successful.

E. §1420(c)(2)(E): Identification of Stakeholders

CDTAG, whose members represented drinking water organizations, associations, and systems from across the State, identified additional stakeholders who were then invited to participate in CDTAG meetings. In order to involve other stakeholders, DENR held public meetings over television, posted the draft strategy on the Web site, and issued a press release to notify the public of the availability of the draft strategy.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

DENR has developed methods to identify systems in need of assistance, prioritize those systems based on the risk the system presents to public health, and to measure improvements in the systems which will allow the State to evaluate the overall effectiveness of the capacity development strategy. DENR has also examined current programs, and has developed additional programs and activities that will help systems achieve and maintain compliance with drinking water requirements.

IV. Implementing the Strategy and Evaluating Progress

DENR started developing the new tools for the capacity development program during the summer of 2000 and will begin to prioritize systems around the same time. Any systems classified as a high risk, will be contacted immediately and asked to begin the capacity development process. DENR plans to re-prioritize systems during January 2001 and quarterly thereafter. DENR will continually evaluate the State's capacity development program.

Tennessee

I. Solicitation and Consideration of Public Comments

In developing its capacity development strategy, the Tennessee Department of Environment and Conservation's (TDEC's) Division of Water Supply (DWS) engaged in a dialogue with stakeholders, the regulated community, and members of the general public. DWS assembled a working committee to consider the Capacity Development strategy and to suggest modifications. The Committee consisted of representatives from PWSs, environmental groups, and the water supply industry. Stakeholder meetings were held with the Tennessee Association of Utility Districts (TAUD), Municipal Technical Advisory Service (MTAS), and the Small Community Outreach and Education Committee. The State's draft strategy was also made available on TDEC's Web site. Citizens and stakeholders were encouraged to comment via telephone, e-mail, or letter.

DWS staff summarized the comments obtained through these forums and discussed their incorporation into the strategy. Every comment was considered and addressed in the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DWS will use compliance data, sanitary survey results, DWSRF loan applications, audit reports, operator certification information and reviews by the Water and Wastewater Financing Board and Utility Management Review Board to identify systems with inadequate capacity. CWSs and NTNCWSs that are SNCs and Potential Significant Non-Compliers (PSNCs) will be given top priority for assistance. DWS will give high priority to DWSRF applicants who must meet TMF capacity requirements in order to obtain funding. During the second and subsequent years of the program, the priority will include NTNCWSs that are SNCs and PSNCs, with an emphasis on systems with inadequate financial capacity.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The factors that encourage capacity development in Tennessee include the creation of the State's Operator Training Center, design standards, inspections, TA, and an effective enforcement program. Tennessee identified 16 other factors that encourage and, in their absence, impair capacity development. For instance, without knowledgeable and experienced commissioners and/or managers, PWSs are less able to comply with the many requirements of SDWA. To address this need, DWS, in partnership with TAUD and MTAS, will offer management training to the State's PWSs (see Element C below).

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

- TMF Assistance. DWS will offer TA to SNCs and PSNCs. Existing CWSs seeking DWSRF loans and systems referred to DWS by the Division of Municipal Audit and other financial review boards will also receive financial and managerial assistance, as necessary.

In the second and third years of the program, NTNCWS SNCs or PSNCs that are in need of financial capacity assistance will receive a Financial Self-Assessment Manual from DWS. The manual will help systems to determine the source of their problem and to develop a financial capacity plan. The Division will determine the need for the Self-Assessment through an interview with the system.

- Management Training. DWS will work with TAUD and MTAS to develop resource materials for utility district commissioners, council members, aldermen, mayors, city managers, and water system managers. Using these materials, TAUD and MTAS will schedule and conduct training events through the State. DWS will encourage management personnel from noncompliant systems to attend these events.

- Standard Operating Procedures (SOPs). DWS will encourage all PWSs to develop and adopt SOPs for operations, maintenance, and troubleshooting. Systems with a history of noncompliance will be required to develop and adopt SOPs.

2. Encouraging the Development of Partnerships Between PWSs

Tennessee statutes, regulations, and policies do not require capital improvement planning or regionalization studies. Water systems do not have to determine the feasibility of interconnection, nor do they have to examine the financial impacts of annexation, acquisition, or consolidation. Furthermore, funding is sometimes available for the creation of smaller, stand-alone water districts whereas it is often unavailable to existing systems that wish to extend their service areas. These legal and financial factors create a disincentive for partnerships. DWS will meet with the TDEC Policy Office to try to address these issues and to clarify and strengthen the regulatory language that encourages consolidation "insofar as feasible."

3. Assisting PWSs with the Training and Certification of Operators

The State has established an Operator Training Center for water and wastewater operators and requires all PWSs to employ certified operators. For more information on Tennessee's operator training resources, see http://www.State.tn.us/environment/dca/fleming.htm.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DWS will use its SNC List (submitted to EPA in August 1997) as a baseline. The State will adjust the baseline to incorporate systems that become SNCs as new rules are promulgated. Decreases in the number of systems on the SNC list will provide a measure of the improvement in capacity among PWSs in Tennessee. Improved sanitary survey scores and increases in the number and technical classification of certified operators will also indicate improved capacity.

E. §1420(c)(2)(E): Identification of Stakeholders

DWS sent information on the proposed Capacity Development Rules (including both the program for ensuring capacity in new CWSs and new NTNCWSs and the existing system strategy) to all 1,191 PWSs

in Tennessee. Three public hearings on the rules were held in 1999. PWSs, certified operators, industries, and environmental groups expressing interest in the Rules were sent copies of the draft Capacity Development Strategy and added to the Capacity Development Committee.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

In developing its strategy, Tennessee recognized that many technical capacity assistance activities are already in place, including operator certification, plans approval, and sanitary surveys. The State also recognized that it cannot provide additional assistance to all systems. Therefore, Tennessee's strategy focuses attention on the financial and managerial capacity of systems that have attained SNC or PSNC status. This approach allows Tennessee to direct available resources towards those systems most in need of help, and offers them types of assistance they may not have otherwise received. Tennessee's strategy also focuses on building partnerships with other State agencies responsible for financial reviews or other activities related to capacity development.

IV. Implementing the Strategy and Evaluating Progress

Implementation efforts have included drafting the strategy, identifying and involving interested persons, and developing partnerships with other organizations to prepare for future activities, such as the TAUD/MTAS management training sessions.

Direct assistance initiatives will begin in the first year of the program with a focus on CWSs that are SNCs or PSNCs. In the second and third years, efforts will be directed towards NTNCWSs that are SNCs or PSNCs and towards other NTNCWSs lacking financial capacity.

Also during the second and third years of the program, DWS will re-evaluate the strategy and incorporate revisions as necessary. The Division will work with its training partners to evaluate and amend the resource materials and to evaluate the success of past training sessions.

Texas

I. Solicitation and Consideration of Public Comments

The Texas Natural Resource and Conservation Commission (TNRCC) held three stakeholder meetings to gather input on the State's capacity development strategy. The first meeting was an input session, the second was an opportunity for stakeholders to comment on a draft of the strategy, and the third meeting allowed stakeholders to comment on the capacity development activities that TNRCC had already begun to implement. Input was gathered through small group discussions with report-out sessions. The information obtained through the meetings was used to develop the final strategy.

TNRCC also met with the Drinking Water Advisory Work Group, the Texas Water Development Board, and the different funding agencies in the State; distributed a draft of the strategy to over 200 stakeholders; and presented information on the strategy at trainings and conferences.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

TNRCC has developed several methods by which systems are identified and prioritized including:

- Prioritized Assessments. All systems serving 15,000 people or less are included in the prioritization data model developed by TNRCC. The model prioritizes systems by assigning point values to specific weaknesses, including health compliance factors, enforcement status, susceptibility to drought conditions, and sanitary survey results. These indicators are gathered using on-site assessments, DWSRF assessments, CPEs, SWP programs, and business/TMF plan reviews. The systems with the highest priority points are scheduled for an on-site TMF assessment.

  Any system with 3 or more deficiencies, identified during the TMF assessment, will be required to complete a corrective action plan (CAP), will be continually monitored, and required to complete a follow-up inspection with the State. Systems with less than three deficiencies may be referred to any one of several divisions/sections within TNRCC for assistance. In all cases, TNRCC will conduct an exit interview with system management after each assessment to judge its effectiveness.

- DWSRF Assessments. TNRCC conducts on-site assessments of systems on the DWSRF project priority list that have indicated an interest in applying for a loan, to determine if the system has sufficient TMF capabilities. TNRCC provides assistance and ensures that any appropriate changes are made to the system before DWSRF monies are allocated.

- Consolidation Assessments. TNRCC will conduct a consolidation assessment to determine the incentives and barriers to consolidation. If consolidation is recommended, TNRCC helps the system develop and execute a consolidation plan.

- Directed Assistance. Systems with less than 3 deficiencies (as described above) are referred to the different sections/divisions within TNRCC.

B. §1420(c)(2)(B): Identification of Factors that Enhance or Impair Capacity

TNRCC identified the following factors and programs, among others, that enhance or impair the capacity of PWSs: implementation reports (prepared by systems that have completed CAPs); quarterly reports from TNRCCs' contract service provider; research conducted by the Region 6 Environmental Finance Center on rates, establishing a method of assessing affordability of treatment techniques, and the operating characteristics of a well-run water system; regular stakeholder meetings; integration of information between TNRCC and rate-making regulatory programs; and sanitary surveys.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

Along with many existing programs including training and outreach activities, TA programs, on-site assessments, phone and mail correspondence, drought response referrals, surface water optimization program, and Web sites, TNRCC is in the process of creating a new contractor TA site visit program for all PWSs in the State. The Commission has also developed a process to ensure systems will not receive DWSRF funding until improvements are made, or systems will require improvements as part of the project. In addition, all DWSRF applicants must take part in a detailed on-site TMF inspection by TNRCC staff or contractors prior to receiving funding.

2. Encouraging the Development of Partnerships Between PWSs

TNRCC has taken several steps to encourage partnerships between water systems in Texas, including:

- Defining regionalization (partnerships) and including several scenarios in the definition to help systems understand current industry terminology and field practices.
- Creating regional planning groups to address water supply problems on a regional basis.
- Promulgating strict requirements for proposed water systems.
- Requiring systems to demonstrate that they have attempted to obtain water service from a system within two miles before issuing a Certificate of Convenience and Necessity (CCNs).
- Performing consolidation assessments on those systems that request one or if TNRCC feels such an assessment is necessary.
- Training staff on the importance of partnerships, regionalization, and consolidation.
- Developing a guidance document titled "The Feasibility of Regionalization."
- Allowing investor owned utilities that purchase other water systems to include an acquisition adjustment in the cost of service for rate setting purposes.
- Providing information on consolidation and partnerships at workshops, seminars and conferences.

3. Assisting PWSs with the Training and Certification of Operators

The TNRCC has promulgated new operator certification rules to ensure operator training is available on a more frequent basis and that continuing education is required of all operators. TNRCC also plans to improve the training program for distribution and treatment operators.

A unique aspect of the Texas strategy includes providing a basic water production course to high school students interested in pursuing a career in the water production business.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

In order to establish the baseline, TNRCC examined all types of water systems. The Commission determined the baseline must include both systems with and without adequate capacity in order to provide a clear picture of the status of water systems in the State. To identify systems with adequate capacity, TNRCC examined any assessment information, health and compliance data, whether the system had a certified operator, deficiency scores, and enforcement actions. In total, 1,237 of the 4,473 systems in Texas exhibited adequate capacity.

In order to measure improvements, TNRCC will analyze how the goals of the strategy are being met. The goals of this strategy include: the number of systems in compliance and the percentage of systems this represents; the percentage of the population served by systems in compliance with SDWA; a comparison of the number of systems on the SNC list from year to year; the number of systems that are required to improve TMF capabilities; loan dollars distributed to systems in need of improvements in treatment capability, and; the number of courses, training sessions, publications, and follow-up assistance offered by TNRCC.

E. §1420(c)(2)(E): Identification of Stakeholders

TNRCC had three stakeholder meetings to gather input on the strategy. The Commission also worked with the Drinking Water Advisory Work Group whose meetings are attended by, among others, the League of Women Voters, Consumers Union, AWWA, the Texas Rural Water Association, the Independent Water & Sewer Companies of Texas, Association of Water Board Directors, Texas Water Conservation Association, Texas Engineering Extension Service, Texas Municipal League, and Texas Society of Professional Engineers.

The Commission has planned a marketing scheme (to increase awareness in the program), which involves making presentations, developing publications, preparing handouts and brochures, and developing a Web site.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The Texas Capacity Development strategy represents a comprehensive package to assist PWSs in achieving and maintaining capacity. The identification and prioritization initiative will enable TNRCC to assess the systems most in need of TMF assistance based on compliance and health effects data. These systems will be identified and will receive assistance from several sources in order to return to compliance. New compliance, partnership, and operator certification initiatives will enable TNRCC to continue to offer new programs and incentives to systems for the purpose of achieving and maintaining capacity. Continued implementation efforts and periodic evaluations will ensure the program is indeed improving the TMF capacity of those systems affected by the program.

IV. Implementing the Strategy and Evaluating Progress

A capacity development strategy has been in place in Texas since 1997. Water system on-site assessments and assistance were implemented in 1998. Together, the two programs have achieved several positive results, including: the completion of 657 PWS TMF capacity assessments, assisting 685 PWSs in the development of a CAP to address root causes of noncompliance or to address system specific issues. Sixty-three water systems were assessed for potential consolidation, and so far, 3 consolidations have been successfully completed, and others are pending resolution.
Because most of the activities described above are performed by a third party contractor, TNRCC performs monthly QA/QC to monitor the performance of the contractor and the effectiveness of the program. TNRCC staff also accompany contractors on site visits, and call and send written surveys to PWS personnel. The surveys enable owners and operators to express their opinions about the program and the assistance they received.

Every one to two years, the renewal of contracts for on-site TA provides an opportunity to evaluate and change the program. During this process contract tasks and deliverables are identified, and cost/benefit analyses are performed to ensure the goals of the Capacity Development program are being met.

Utah

I. Solicitation and Consideration of Public Comments

Both the Utah Drinking Water Board (DWB) and Division of Drinking Water (DDW) have authority to regulate Utah's PWSs. The DWB used funds from the DWSRF set-asides to fund the development of regional drinking water management plans in 26 of the State's 29 counties. The regional planning process aimed to solicit comments from the water systems and customers most directly affected by the results.

Each county commission appointed a Region Administrator (RA) who was responsible for creating the Region Plan for the county. Each RA scheduled an initial public meeting and advertised it in local newspapers. Representatives of each PWS in the county were encouraged to attend. At the initial meeting, the RA explained the scope of the work, and participants were asked to serve on one or more regional planning committees including source protection, operator certification, monitoring requirements, technical analysis, financial analysis, managerial analysis, and funding sources. The Rural Water Association of Utah, the Local Health Department, and the DDW staff assisted at local meetings, and, along with the RA, advised the committees. The committees were the prime source of input in the regional planning effort, and the RA recorded all comments and recommendations made by the committees.

The RA and the local committees selected a qualified Consultant who then performed a thorough technical and financial analysis of each water system. The Consultant used past sanitary surveys, maps, engineering plans, and other available information to provide an analysis.

The Consultant submitted draft copies of the technical and financial data to the RA, who then gave it to each PWS in the Region. Each PWS had the option to accept or reject the recommendations of the Consultant. The Consultant reviewed the input from each PWS, and incorporated it into the final Region Plan submitted to the RA.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DDW has developed a list of violations with a corresponding point value which is based on the severity of the infraction. DDW evaluates a PWS's compliance record and based on the total number of points, rates the system as "approved," "corrective action," or "not approved" A point accumulation equal to or greater than: CWSs--150 points, NTNCs--120 points, and NCWS--100 points results in a "not approved" rating. The "not approved" rating remains in place until the threat to public health is alleviated or the violation is corrected.

A “not approved” system may qualify for a “corrective action” rating, if the PWS submits the following three items:

- A written agreement stating a willingness to comply with the requirements of the Administrative Rules.
- A compliance schedule outlining the necessary construction or changes needed to correct any physical deficiencies or monitoring failures.
- Proof of financial ability to correct the deficiencies.

The “corrective action” rating continues until the total project is completed.

DDW uses this rating system to identify which systems are most in need of assistance and then to prioritize the provision of assistance including site visits, administrative orders, hearings, penalties, and court action.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The strategy documents submitted to EPA by DDW did not include the identification of factors that enhance or impair capacity.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DDW will continue to implement programs and activities that assist systems with compliance, including:

- Plan review and the issuance of operating permits for facility expansions.
- Loan program.
- Source protection program.
- Sanitary Surveys.

2. Encouraging the Development of Partnerships Between PWSs

DDW established the Utah Water Quality Alliance which consists of the largest surface water suppliers in Utah, and small- and medium-sized systems that operate water treatment plants. The Alliance provides networking opportunities for PWSs.

3. Assisting PWSs with the Training and Certification of Operators

All systems serving more than 800 people, and all systems with treatment plants, must have a certified operator. Information on the State’s Web site provides operators application and renewal application forms, information on books and tapes available from the Lending Library, practice exam questions, a link to view accumulated Continuing Education Units as recorded in the Division's database, and a one year training calendar.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

Utah will use the violation point system (described in Element A) as a means of establishing a baseline. DDW will compare the number of systems receiving an "approved" rating to measure success. In addition, improvement will also be measured by the number of systems receiving TA from DDW, the RWA of Utah, or Local Health Departments. DDW will also track the number of self-assessment checklists completed by DWSRF assistance applicants and unapproved systems.

E. §1420(c)(2)(E): Identification of Stakeholders

RAs advertised public meetings in local newspapers and sent a Draft of the Regional plan to each PWS in the Region. Representatives of each water system in the Region were encouraged to attend the public meetings.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

The problems facing small water systems in the State will be resolved using "education, partnerships, and funds from federal grants." Systems are prioritized based on the number and types of violations. This rating becomes the baseline against which the State will measure improvements. Utah has many established programs that will assist systems in achieving and maintaining compliance.

IV. Implementing the Strategy and Evaluating Progress

DDW has been implementing many of the programs and activities that comprise their strategy for many years. The Division will evaluate the progress of their capacity development strategy through the preparation of the triennial report to the Governor, required under the SDWA. The report will summarize the results of the previous assessment and describe any changes to the procedures for assessing TMF capacity.

Vermont

I. Solicitation and Consideration of Public Comments

In January 2000, Vermont's Water Supply Division (WSD) invited approximately 2000 interested parties to become members of a Capacity Development Advisory Workgroup that would help to develop the State's capacity development strategy. Fifty volunteers came forward to participate in the Advisory Workgroup, and met initially to devise a work plan, set out a schedule, and identify other interested public participants. The work plan called for WSD meetings, owner/operator meetings, and Statewide stakeholder meetings to gather input on the five strategy elements listed in the SDWA.

WSD held eight owner/operator public meetings to obtain comments and recommendations on the development of the draft strategy and Advisory Workgroup meetings to draft the strategy.

WSD posted meeting results, public comments, and strategy documents on their Web site. WSD also mailed the dates of the public meetings, the location of the draft strategy online, and the deadline for public comment, to over 2,500 owners, operators, and stakeholders.

WSD and the Advisory Workgroup reviewed all public comments, responding where appropriate. The comments and suggestions received at the owner/operator meetings and from the Advisory Workgroup form the basis of Vermont's capacity development strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

Vermont chose not to prioritize PWSs in need of assistance since technical and financial assistance providers are able to lend assistance to all systems that request it. WSD identifies the systems in need through sanitary surveys, compliance monitoring, and other frequent contacts with the systems. In the event that the number of systems needing assistance exceeds the available resources, WSD plans to prioritize systems according to the following factors:

- DWSRF priority list status.
- System ownership (municipal, private non-profit, private profit).
- System type (CWS, NTNC, TNC).
- System size (design population) and number of permanent residents.

WSD may use criteria from other prioritization schemes (i.e., Planning Loan Fund and Source Water Protection Loan Fund, enforcement actions, and operator certification) to further prioritize systems and determine assistance needs.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

WSD identified 7 factors that encourage the achievement and maintenance of capacity in PWSs. Most of these factors are existing programs, such as operator training, facility evaluation, sanitary surveys, source

water/wellhead protection, and loan programs. WSD also notes that the knowledge of WSD staff and other TA providers in the State contributes to the development and maintenance of TMF capacity.

The stakeholders and WSD identified 16 factors that impair the capacity of PWSs in the State. As part of the State's capacity development strategy, WSD will initiate new programs and activities to address these impairments. Element C provides a further discussion of these new initiatives.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

WSD will continue to implement existing activities such as permit plan and review, sanitary surveys, and sampling and reporting to assist systems with meeting applicable standards and monitoring requirements. Financial assistance provided through the Rural Development Program, the Community Development Block Grant program, the DWSRF, the Planning Loan Program, the Source Protection Loan Program, the Source Water Assessment Program, and the Facility Evaluation Program, also assists systems with compliance. WSD also uses the Source Water Assessment Program and the WSD Enforcement Committee to discuss noncompliant systems and appropriate actions to be taken.

WSD plans to initiate a monitoring cost study to evaluate the options, advantages, disadvantages, and impediments to providing systems with financial assistance for compliance monitoring activities. Other initiatives include:

- DWSRF program changes to make the program more responsive to small systems.
- Contracting with a third party provider to help systems prepare loan applications and municipal agreements.
- Engineering TA to help small systems with O&M issues.
- The development of small system O&M manual, long range plan, and financial documentation templates.
- TA to help water system develop budgets and analyze and establish user rates.
- A possible contract to a TA provider to help small system with public service board rate change procedures (contingent upon agreement by the public service board).
- Development of a board member manual, small system design criteria guidance manual.
- Publication of a newsletter to improve communications between WSD and systems.
- The establishment of a communications Workgroup.

2. Encouraging the Development of Partnerships Between PWSs

WSD will contract with a third party provider to identify opportunities for physical or operational consolidation of water systems and the advantages and disadvantages of consolidation. Small CWSs and schools will be evaluated.

In addition, WSD is considering developing information on, and supporting, pubic-private partnerships, "Big Brother" arrangements, and a peer review program.

3. Assisting PWSs with the Training and Certification of Operators

WSD, in conjunction with the Northeast Rural Water Association, the Rural Community Assistance Program, and the Green Mountain Water Environment Association, provides water system operators with training and certification. WSD's Operator Certification Committee ensures the usefulness and effectiveness of the training. In addition, WSD's information and guidance documents update owners and operators on regulations and policies.

In the future, WSD plans to develop technical training and assistance through group training and one-on-one assistance.

D. §1420(c)(2)(D): Method of Establishing Baseline & Means of Measuring Improvements

WSD will set the baseline against which they will measure improvements by examining data collected by June 30, 2000. On June 30th every year thereafter, the State will review the data and compare it to the previous year. Baseline data will include:

- Regulatory activities: the number of deficiencies in TOPs; the number of systems with Long Range, Source Protection, and Bacteriological Sampling plans; the number with approved O&M manuals; and the number with TMF capacity criteria.
- Compliance data: the number of systems out of compliance with water quality monitoring and reporting requirements, and the number out of compliance with Consumer Confidence Reports.
- Operator certifications.
- Other indicators of capacity: the number of systems on boil water and "do not drink" orders, and the number requiring facility improvements.

E. §1420(c)(2)(E): Identification of Stakeholders

WSD sent an invitation to participate on the Capacity Development Advisory Workgroup to over 2000 stakeholders, including PWSs, local and State agencies, system operators and employees, TA providers, environmental organizations, and the general public. Over 50 individuals responded. The Advisory Workgroup identified additional interested stakeholders, who were then encouraged to participate through the public meetings and during the public comment periods.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

WSD solicited and considered public comments during the development of their strategy. The strategy targets the factors that impair capacity as identified by the stakeholders and assistance will continue to be provided to all systems in need. The Division has decided to implement many new programs and activities targeted to assist systems with compliance.

IV. Implementing the Strategy and Evaluating Progress

WSD will implement Vermont's capacity development strategy with assistance from other State agencies and TA providers. WSD will reevaluate the strategy periodically and make adjustments for improvement where necessary.

The Capacity Development Advisory Workgroup will continue to meet to provide recommendations, suggestions, and comments on the new initiatives and on the strategy's implementation. WSD will continue to solicit public comment through invitations to participate at the Advisory Workgroup meetings, posting information on the State Web site, publishing newsletters, and soliciting additional public comment where appropriate.

Virginia

I. Solicitation and Consideration of Public Comments

The Virginia Department of Health (VDH) presented a framework for the development of the State's Capacity Development strategy at the Virginia Waterworks Advisory Committee's (WAC) March 18, 1999 meeting. At this meeting VDH also discussed SDWA requirements, the schedule for completing the strategy, and the stakeholder involvement process. Specific members from VDH staff, along with members from the WAC, formed a Capacity Development strategy Team (TEAM). The TEAM developed the goals and objectives of the strategy and also provided input into the elements of the strategy.

VDH solicited public comment through a public comment period in the VA Register, as well as posting the capacity development strategy document on-line at the VDH Web site.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

VDH identifies systems in need of TMF assistance and prioritizes them according to the following methods:

- Overall Capacity Assessments. The Overall Capacity Assessment consists of the following four factors added together:
  - Waterworks Compliance Factor: Measures the waterworks ability to meet current SDWA requirements. Data will come from the existing PWS database that contains basic waterworks information and compliance histories.
  - Waterworks Condition Factor: Information gathered from sanitary surveys including system condition, and operation and maintenance data.
  - Waterworks Managerial and Financial Capacity Factor: New information that may be obtained from sanitary surveys.
  - Waterworks Future Regulation Impact Factor: VDH staff determines whether or not existing waterworks will meet new requirements. Regulations to be evaluated include Operator Certification, Interim Enhanced Surface Water Treatment Rule, Stage 1 Disinfection/Disinfection By-Products Rule, and the Ground Water Rule.
- VDH DWSRF staff assess all waterworks targeted to receive DWSRF funding. VDH DWSRF staff rank waterworks with insufficient TMF capacity, and place them on the DWSRF project priority list. The systems receive assistance according to the order they appear on the list. Prior to receiving DWSRF funding, a system must submit and receive approval of a Comprehensive Business Plan (CBP).

The prioritization lists are given to VDH's Oversight Committee. The Committee assesses a system's assistance needs and refers the system to a TA provider. Prior to referral, the Committee plans to obtain VDH Field Office concurrence on the assessment data. TNCWSs requiring assistance will be referred through VDH's routine surveillance program.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

VDH identified approximately 20 factors that encourage capacity including 12 DWSRF funded activities, an abundant water supply, and the State's comprehensive program for providing TA to systems (specifically VDH's contracts with third parties who guarantee certain services to systems in need). VDH also identified 14 factors that impair capacity including the large number of independently owned and operated systems; no discouragement of the proliferation of small, stand-alone waterworks; and the lack of profit in the operation of most waterworks.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

VDH identified existing programs that assist PWSs in the State with compliance including the Sanitary Survey program, plan reviews and permitting, water quality compliance monitoring, vulnerability assessments, TA circuit riders, and the Source Water Protection program. Compliance activities include:

- On-site assistance to systems, not exceeding one visit per 18 months, through the Sanitary Survey program.
- Contracting with third party providers to help systems develop a CBP and providing VDH with a progress report.

Through the use of DWSRF set-asides, VDH plans to expand its programs to provide more assistance to systems that are in need. VDH will provide State loans or grants to enable waterworks to improve their infrastructure, and encourage the creation and expansion of regional water suppliers. In addition, VDH will continue to encourage and require all new waterworks to develop a CBP, and educate consumers in low-income areas about their water rates and services. VDH will also develop programs to assist waterworks that have a large number of low-income customers.

2. Encouraging the Development of Partnerships Between PWSs

VDH indicates that existing programs, such as source water assessments, joint projects, circuit riders, and various forms of TA already encourage the development of waterworks partnerships. In the future, DWSRF set-asides will be used to establish a Drinking Water Peer Review Program that will pair waterworks with industry experts. The program will be geared towards small and rural communities, but will not be limited by size or function. VDH also plans to encourage consolidation through funding (i.e., DWSRF) and in compliance/enforcement actions. VDH will develop incentives for satellite management or other types of regionalization in areas that face economic and demographic challenges.

3. Assisting PWSs with the Training and Certification of Operators

In addition to the current of training provided during the sanitary surveys, the present Operator training and certification programs, the on-site contractor may assist waterworks in obtaining the proper training, which can lead to proper certification.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

VDH will use existing compliance data, sanitary survey data, and capacity assessment data to form an Overall Capacity Assessment for every CWS and NTNCWS by July 1, 2001. All waterworks will be assessed again after 3 years to measure improvements. The information collected by VDH from on-site assistance providers will provide additional insight into improvements. TNC systems are not included in the baseline assessment, "due to the relatively low public health impact associated with their lack of capacity as well as VDH staffing considerations."

E. §1420(c)(2)(E): Identification of Stakeholders

Virginia's WAC has existed since 1974, and is an ongoing committee of active, diverse stakeholders. The WAC, which meets every six months, makes recommendations regarding the State's waterworks and VDH's water supply policies, procedures, and programs. The WAC includes members representing water industry associations, community waterworks owners, system operators, municipal leagues, other State government officials, and citizens. The WAC formed the core of the TEAM, a 9 member group, that also included VDH staff. The TEAM provided input into the drafting and implementation of the State's strategy.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

VDH will identify and prioritize systems in need of TMF assistance either through the DWSRF application process or through an Overall Capacity Assessment which combines both existing and newly gathered information. In addition to prioritizing systems, the Overall Capacity Assessment also creates a baseline against which VDH will measure improvements. Any system needing assistance will be referred to VDH staff or a third party provider for targeted on-site assistance.
VDH staff and the TEAM will help implement the guidance and procedures of the strategy in order to achieve its missions and goals. VDH will ensure that waterworks are aware of capacity development issues, requirements, and the financial and TA available through handouts, sanitary survey personnel, and stakeholders from the TEAM.

IV. Implementing the Strategy and Evaluating Progress

VDH will perform an Overall Capacity Assessment by July 1, 2001 on all PWSs in the State. A reassessment will be performed three years later in calendar year 2004 to determine both system improvements and the overall effectiveness of the strategy. The Capacity Development TEAM will continue to meet approximately once every six months to discuss the status of capacity development efforts.

Washington

I. Solicitation and Consideration of Public Comments

The Small Water System Advisory Committee (SWSAC), formed by the Department of Health (DOH) in 1997, held five meetings to discuss small system capacity development and regulatory compliance issues. The Committee identified 15 components that should be included in a Capacity Development strategy such as, educating other agencies and the public, enforcing planning requirements, providing incentives to restructuring, promoting satellite management, and providing timely and accurate operating permits.

The Washington Water Supply Advisory Committee (WSAC), established by the State Legislature in 1995, held 16 meetings where various aspects of capacity development were discussed. WSAC concluded that the strategy should:

- Make systems with public health risks a priority.
- Ensure compliance.
- Enhance Training and TA.
- Resolve satellite management barriers.
- Improve outreach and communications with the drinking water community.

The WSAC considered the comments and recommendations of the SWSAC and provided direction to DOH.

DOH, in conjunction with the Public Utility District Association and the WSAC, convened a Satellite Management Agency Brainstorming Committee (SMBC). The SMBC's 32 members identified, categorized, prioritized, and proposed solutions to the barriers that impact the ability of a water system to remain in compliance. DOH used this information to develop the strategy.

In addition to soliciting and considering the comments of the above described committees, DOH conducted a number of workshops to solicit public input on the direction of the strategy including:

- SRF Workshops. DOH held 14 workshops to gather input from potential assistance recipients. The Department considered the comments and incorporated them into the strategy and the SRF Loan Application process.
- Need to Know Training Workshops. Upon the recommendations of the WSAC, DOH conducted workshops for small systems operators to educate them on how to acquire and maintain capacity. The workshops provided DOH with input on specific components of the strategy and operator and system assistance needs.
- Small Water System Management Program Development Process and Workshops. Part of Washington's strategy requires all systems, not otherwise required to develop a water system plan, to develop a small water system management program (SWSMP). The program assesses a water system's TMF capacity. DOH solicited comment from the drinking water community and the public and pilot tested the SWSMP in order to refine it for future use.

DOH posted a draft of the strategy on the Department's Web site, presented the draft directly to staff during three meetings, and sent the document directly to the WSAC. The comments DOH received were evaluated and addressed to the extent feasible. DOH will continue to review public comments as the Department implements and revises the strategy.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

Systems are divided into categories based on the color of their permit[3] and whether or not they appear on the Department's Compliance Targeting List.[4] The highest priority is given to systems with red, yellow, or blue operating permits and on the compliance targeting list. Systems operating with a red or blue permit are also a high priority for DOH. Systems operating with a yellow permit are a medium priority and systems with a green permit, but deficient in some aspect of capacity, are a low priority.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

The various stakeholder groups identified 31 factors thought to encourage, and 31 factors thought to impair capacity development. Each factor was categorized on a local, federal, or State level according to institutional, financial, regulatory, tax, and legal categories.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

DOH will continue to implement many regulatory programs and activities that will assist PWSs with compliance. Department staff also work directly with water systems to identify deficiencies and specify resources (including the DWSRF) that can help alleviate those deficiencies. DOH also works with a variety of third party assistance providers who provide training and TA to PWSs.

2. Encouraging the Development of Partnerships Between PWSs

DOH's Satellite Management Program has approved 34 Satellite Management Agencies who provide various levels of service to existing water systems. The partnerships ensure that a higher level of operation and management services will be provided to water systems that may not have the TMF to operate the system in compliance with regulations.

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[3] A Green permit means a system is in substantial compliance with drinking water regulations. A Yellow permit indicates the system is in substantial compliance but does not have a current planning document, certified operator, or has not complied with certain water quality monitoring provisions. A Red permit indicates the system is in substantial non-compliance with drinking water regulations or a Departmental Enforcement Order. A Blue permit means the system has not been evaluated by the Department.

[4] Systems are placed on the list by department staff. DOH prioritizes the systems on the list based on the risk they present to public health; the more severe the risk, the higher the priority.

3. Assisting PWSs with the Training and Certification of Operators

DOH administers a regulatory program for the certification of water system operators. A system without a certified operator will be issued a yellow operating permit indicating non-compliance with a drinking water regulation.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DOH is using a very simple equation to establish a baseline from which to measure capacity:
A + B + C = Capacity. A system will receive an A if it has a green operating permit, a B if it has a complete water system plan or SWSMP, and a C if it has not been issued a Health Order or Departmental Order.

Improvements will be measured by comparing data (both individual system data and overall PWS program data) from year to year in 24 different data categories. Examples include the number of systems with green operating permits, the number of systems with a certified operators, the number of systems under SMA ownership or operations, the number of water quality sampling violations, etc.

E. §1420(c)(2)(E): Identification of Stakeholders

WSAC members are appointed by the Legislature. The Committee represents a range of drinking water interests, including utility owners and operators, consumers and environmental advocates, industry representatives, State senators, and local and State government officials.

SWSAC is made up of representatives from consumer advocate groups, small water systems, investor-owned utilities, non-community water systems, TA providers, local health representatives and DOH staff.
The SMBC is made up of 32 members representing Satellite Management Agencies, Public Utility Districts, State Agencies, PWSs, and the private sector.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Washington has been evaluating drinking water system capabilities for many years. DOH places systems into five categories based on permit color (which in turn is based on compliance status) and the Department's compliance targeting list. Once the systems are categorized, the type and level of assistance can be determined. Enforcement actions may be taken if TA methods do not bring the system into compliance. Once a system has achieved adequate capacity, the State continues to monitor the system through sanitary surveys and compliance tracking.

Systems with similar deficiencies are grouped together and DOH may fund a project to assist the systems in resolving the deficiency and may request assistance from one of its third party providers.

IV. Implementing the Strategy and Evaluating Progress

DOH is currently implementing many programs and activities linked to capacity development. The Department is developing a detailed implementation plan that defines specifically how the capacity development strategy will be carried out, monitored, and amended. DOH also plans to develop:

- A communication and outreach strategy to further educate the drinking water community about capacity development issues.
- A specific strategy to utilize third party groups and a MOU with third party TA providers.
- A new Data System to manage all PWS data.
- New set-aside funded projects to assist water system in achieving and maintaining capacity.

West Virginia

I. Solicitation and Consideration of Public Comments

On June 8, 2000 the West Virginia Bureau of Public Health (WVBPH) held a meeting to solicit input from stakeholder groups and the general public on a draft of the State's Capacity Development strategy. WVBPH held the comment period open for 30 days and posted the strategy on their Web site. Towards the end of this period, WVBPH held another public hearing to solicit and record public comments, public responses, and association positions in a Capacity Development Comment and Response Log. WVBPH posted the contents of the Log on their Web site.

In addition, each WVBPH District Office had draft copies of the strategy available for review by the public. The results of the public participation process will be provided to the public upon request and all associations participating in the public participation process were be mailed a copy of the final results. The final strategy is posted on WVBPH's Capacity Development Homepage.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

WVBPH adopted two methodologies for prioritizing water systems:

- Applicants for Drinking Water Treatment Revolving Fund (DWTRF) monies are assessed by WVBPH DWTRF staff to determine system capacity. Systems with insufficient capacity are priority systems, are referred to the WVBPH Infrastructure/Capacity Development Section (ICDS), and added to a list of systems needing on-site assistance.
- ICDS identifies and prioritizes all other systems needing assistance through the Overall Capacity Assessment process (described in Element D). The ICDS divides this prioritization list into two categories: those with system specific capacity deficiencies and those with global capacity deficiencies (i.e. attributable to a specific region or a deficiency effecting multiple systems). Systems with global deficiencies are referred to the WVBPH Oversight Committee, which then provides assistance, while ICDS deals with the system specific problems.

The ICDS, in cooperation with District Office staff, arranges for a comprehensive needs assessment of high priority systems. The assessment verifies the priority rating and determines assistance needs. WVBPH or a third party TA provider provides any on-site assistance.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

WVBPH identified approximately 15 factors that encourage capacity including sanitary surveys, operator requirements, system inspections, and other WVBPH regulatory programs. WVBPH identified approximately 11 factors that impair capacity including a lack of a legal mechanism to encourage consolidation, system location impediments, and poor financial structure of systems.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

1. Assisting PWSs with Compliance

WVBPH identified existing tools such as sanitary surveys, plan reviews and permitting, vulnerability assessments, compliance monitoring, TA from Circuit Riders, and the Source Water Assessment program, as State resources that help systems achieve and maintain compliance. WVBPH will assist systems with meeting NPDWRs by providing State loans or grants to enable systems to improve their infrastructure, by providing funds to encourage the creation and expansion of regional water supplies, and by continuing to encourage/require all systems to develop a Comprehensive Business Plan. In addition, WVBPH will develop programs to assist systems with a large number of low-income customers, educate customers in low-income areas about their water rates and service, and develop mentoring and/or peer review programs.

2. Encouraging the Development of Partnerships Between PWSs

WVBPH will assist PWSs in the development of partnerships by encouraging consolidation or merger options through funding infrastructure improvement projects (e.g., DWSRF) and through compliance/enforcement actions. The Public Service Commission (PSC) will use its authority to help systems pursue consolidation. In areas with economic and demographic challenges, WVBPH will develop incentives for satellite management or other types of regionalization.

3. Assisting PWSs with the Training and Certification of Operators

In addition to the existing operator certification program and operator training by third parties, West Virginia will assist systems in the training and certification of operators through the consolidation and/or coordination of a wide variety of training resources in order to eliminate structural impediments.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

WVBPH will develop an initial baseline through data generated from a National Rural Water Association (NRWA) water system self-assessment survey (sent to all systems in July 2000), existing WVBPH and PSC compliance monitoring data, sanitary survey data, and managerial and financial data. The baseline assessment takes into account four factors, listed below, which make up an Overall Capacity Assessment. Data elements for the Assessment include:

- Water System Compliance Factor (from NRWA survey and existing PWS database): SNCs and treatment technique, frequent monitoring and reporting, and CCR failure violations.
- Water System Condition Factor (from NRWA survey and Sanitary Surveys): Failure to meet source, treatment, distribution, and storage design/construction standards.
- Water System Managerial & Financial Capacity Factor (from NRWA survey and Sanitary Surveys): Frequent customer complaints and other sanitary survey information.
- Future Regulation Impact Factor (from NRWA survey): Ability to meet new regulations (i.e., Operator Certification, Ground Water Rule, Interim Enhanced Surface Water Treatment Rule, etc.).

Reassessment will occur in 2005, in order to allow ample time for the effects of on-site assistance and other WVBPH programs to make an impact. The reassessment will use the same process and data elements as the baseline assessment. In addition to measuring improvement by looking at the Overall Capacity Assessment data, WVBPH will also measure improvement by examining the results of its assistance programs.

E. §1420(c)(2)(E): Identification of Stakeholders

WVBPH identified two types of stakeholder groups. One type represented formal organizations and associations, which included most drinking water interest groups in West Virginia. WVBPH solicited comments from all organizations and associations willing to participate. The second type was the public at large, which was given the opportunity to participate in face to face meetings with WVBPH and to provide written comments through the mail or Internet. WVBPH will continue its on-going association with stakeholder groups, who may be consulted on the implementation of the strategy.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

WVBPH identified existing programs that enhance capacity and commits to their continued implementation, while suggesting ways to address the aspects of their programs that impair capacity development. The baseline assessment for CWSs and NTNCs will be accomplished by August 6, 2002. The information obtained from the Overall Capacity Assessment will establish a baseline, provide a means of monitoring improvement over time, establish a prioritized list of systems needing TMF assistance, and enable WVBPH to direct personnel and money where they are most needed and effective.

WVBPH or a third party provides on-site TA, and system improvements are measured. WVBPH acknowledges that an important component of the overall strategy is “ensuring water systems are aware of capacity development issues, responsibilities and requirements, and the financial and TA available.” Thus, in its strategy, WVBPH identifies numerous mechanisms communicating with water systems.

IV. Implementing the Strategy and Evaluating Progress

WVBPH is responsible for the overall implementation of the State’s Capacity Development strategy. WVBPH will designate a Capacity Development Team Leader responsible for coordinating and implementing TMF capacity activities associated with DWTRF, PSC, District Offices, third party contractors, and management. Recipients of capacity development assistance will be monitored and reassessed to determine if assistance results in the achievement of the necessary capacity. Through TA providers who are required by contract to send reports to WVBPH describing their activities, WVBPH has an ongoing mechanism to identify factors impairing or enhancing capacity. These reports provide WVBPH with information to target future assistance efforts. Overall program improvement will be measured through the success of water system reassessments.

Wisconsin

I. Solicitation and Consideration of Public Comments

The Wisconsin Department of Natural Resources (DNR) convened a Workgroup to assist in developing the capacity development strategy for existing water systems. The Workgroup met five times between January and May 2000 to discuss elements of the strategy.

The Workgroup decided to gather input from a wider audience through a series of "public input sessions." DNR held four sessions throughout the State in March and April 2000. The meetings were widely publicized through invitations to more than 500 municipal systems, 9,800 TNCs, and numerous trade and professional associations. In addition, the meeting was announced on the DNR Web site and in various organizations' newsletters. DNR sent all participants in the meetings copies of the summary report and the draft strategy.

DNR has included in its strategy the meeting notes, written public comments, and reports from the input sessions. DNR summarized the input received from all of these sources into 13 major points of advice. The capacity development strategy lists and addresses these points.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DNR currently uses two primary mechanisms to identify water systems in need of assistance: sanitary surveys (conducted at all public water systems on a five-year cycle) and annual inspections of municipal systems. DNR will modify its inspection and evaluation processes to integrate TMF capacity elements.

Until the existing inspection and evaluation processes are modified however, DNR will use existing data sources to identify and evaluate PWSs in need of assistance. This includes water quality data, Consumer Confidence Report data, potential financially-troubled systems as identified by the Public Service Commission, systems requesting assistance, systems referred by regional DNR staff, and systems dealing with emergency situations. DNR will modify its Drinking Water System database to store this data electronically.

DNR will prioritize systems annually and will focus on systems that are out of compliance or on the verge of being out of compliance. Prioritization will be based on the information sources listed above. Once the database has been modified, DNR may develop a numerical scoring system.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DNR compiled input from the Workgroup and the public input sessions to develop a list of 18 factors that encourage capacity development and 27 factors that impair capacity development. DNR notes that the major impairments are related to three conditions:

- Systems owners and operators, board members, and local officials do not know or understand the SDWA regulations.
- Systems do not have the financial resources or planning abilities to comply with the SDWA regulations.
- DNR has workload issues and is inconsistent in implementing the requirements of SDWA.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

Wisconsin already has a number of programs aimed at improving water system capacity. DNR will continue to use these tools, sometimes targeted toward specific systems and other times more broadly on a Statewide basis. The strategy lists and describes 24 ongoing programs that are part of the State's capacity development program. It also lists and describes six new or expanded activities it hopes to implement.

1. Assisting PWSs with Compliance

All of Wisconsin's capacity development efforts are ultimately intended to improve system compliance. The strategy specifically mentions letters that DNR sends to water system operators to remind them of upcoming monitoring and reporting deadlines, activities by stakeholder organizations, and DNR's enforcement program. In addition, DNR may develop a self-assessment tool for water systems operators to identify critical areas and focus on improvements that can be made in their operations, may develop additional guidance documents, and is planning on expanding its training programs and to include information on TMF capacity issues.

2. Encouraging the Development of Partnerships Between PWSs

DNR will issue a contract to establish coalitions of municipal and other-than-municipal (OTM) waters system owners and operators. The coalitions will provide a forum where operators may discuss issues in an informal setting, network with other system operators, and receive information on new regulations. The contract anticipates setting up 10 to 20 coalitions that will each meet six times per year over a two year period.

3. Assisting PWSs with the Training and Certification of Operators

Wisconsin has an existing operator certification program. It is being revised to cover certification for OTM and NTNCWS operators. DNR also contracts with the Wisconsin Rural Water Association for assistance to NTNCWS and OTM operators and with the University of Wisconsin to provide training for small municipal system operators and managers.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DNR will track activities in a number of programs to establish a baseline for measuring improvements in its capacity development program. For each of 11 programs, DNR will develop methods or tools to measure progress. For example, DNR will review the Consumer Confidence Report compliance rate based on the number of reports completed compared to the total number of municipal and OTM systems. It will use information collected by the Public Service Commission to provide a measure of the financial capacity of systems.

E. §1420(c)(2)(E): Identification of Stakeholders

DNR developed a list of interested stakeholders which the Workgroup reviewed and revised. DNR sent invitation letters and information on capacity development to 20 additional stakeholders which resulted in 9 new members on the Workgroup. The Workgroup includes members from AWWA, the Foundation for Rural Housing, water utilities, mobile home parks, environmental organizations and environmental consultants, the Municipal Environmental Group, local government, and State agencies.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Less than one percent of Wisconsin's PWSs have difficulty meeting SDWA requirements. DNR believes this is attributable to its comprehensive and long-standing (since 1919) water program. DNR is taking a holistic approach with its capacity development strategy. It emphasizes the importance of the entire public drinking water program in Wisconsin and the interdependence of its parts. DNR believes this approach will be more effective than trying to address system problems in a piecemeal fashion. It will target not only significant non-compliers but also those that face the risk of being out of compliance. Wisconsin will make maximum use of its existing activities, while creating new programs to fill the gaps. The goal is to enhance rather than supplant the State's existing SDWA program.

IV. Implementing the Strategy and Evaluating Progress

DNR developed a time line for implementing its capacity development program during its first year. The time line calls for modifying facility contact, inspection, and evaluation processes, conducting initial capacity evaluations, and collecting baseline information during the fall of 2000. By August 2001 and 2002, DNR's Capacity Development Coordinator will prepare and submit an assessment report to EPA and the Governor, respectively.

Wyoming

I. Solicitation and Consideration of Public Comments

Wyoming's Department of Environmental Quality (DEQ) created a Capacity Development Workgroup with representatives from interested stakeholder groups and presented a preliminary draft of the Capacity Development strategy to it. DEQ solicited additional public comment through meetings and requests for input publicized in Statewide newspapers. DEQ, Wyoming Water Development Office (WWDO), Office of State Lands and Investment (OSLI), all county libraries, and the DEQ Web site all had copies of the strategy available for the public.

DEQ considered and will continue to consider all comments submitted during the implementation of the capacity development program. The final strategy and Wyoming's Capacity Assurance Plan (a supplemental plan that outlines a program to meet 1999 and 2000 EPA deadlines to prevent DWSRF withholdings) are considered "outreach documents" which are available to all interested stakeholders.

II. Description of How the State Considered the Appropriateness of Each SDWA §1420 Program Element

A. §1420(c)(2)(A): Methods or Criteria to Identify and Prioritize the PWSs in Need of Technical, Managerial, and Financial Assistance

DEQ uses the State's DWSRF Priority Ranking System to identify and prioritize systems in need of TMF improvements. The ranking criteria include:

- Address the most serious risk to human health.
- Ensure compliance with the requirements of the SDWA.
- Assist systems most in need, on a per household basis, according to State "affordability criteria."

DEQ considers SNCs to be high priority for capacity assistance. DEQ will also use the Construction Permit Program, O&M Manuals, DWSRF Loan Program, and Sanitary Surveys to identify other systems.

B. §1420(c)(2)(B): Identification of Factors That Enhance or Impair Capacity

DEQ identified 4 of its programs as encouraging capacity: construction permitting, operator certification, DWSRF loan authorization, and the State's Source Water Protection Program (a non-regulatory, volunteer program). DEQ also identified its efforts with EPA to resolve significant noncompliance and attempts to promote capacity development as factors that enhance capacity. DEQ identified 2 factors that impair capacity: the current DWSRF application process and compliance with federal mandates.

C. §1420(c)(2)(C): How the State Will Use the Authorities and Resources of the SDWA

Wyoming does not exercise primary enforcement responsibilities for PWSs and therefore, DEQ cannot take regulatory action against systems in significant noncompliance with the SDWA. While DEQ relies on EPA Region VIII to provide information regarding SNCs, monitoring data, and reporting data, Chapter 22 of Wyoming's Water Quality Rules and Regulations ("Capacity Development Standards for Public Water Supplies"), lists a series of "control points" that DEQ monitors in order to ensure that water

systems demonstrate adequate TMF capacities. In addition, DEQ and OSLI have the authority to require a system to demonstrate capacity prior to receiving a Wyoming DWSRF loan. The two agencies have worked to streamline and simplify the DWSRF funding application and application process.

1. Assisting PWSs with Compliance

OSLI, WWDO, and DEQ provide TA to systems and hold regular meetings to identify and implement State activities to facilitate small system compliance with SDWA requirements. In addition, the State's Source Water Assessment Program (SWAP), funded through set-asides, also provides PWSs with compliance assistance. To rank facilities, a SWAP Advisory Committee developed a priority system which will be used to encourage the development of local source water protection programs.

2. Encouraging the Development of Partnerships Between PWSs

DEQ categorizes the systems in the State and makes a list available to all PWSs that includes general information on each system. This resource can be used to build relationships with local and/or similar PWSs for training system personnel, jointly solving problems, and reducing duplication of efforts.

3. Assisting PWSs with the Training and Certification of Operators

The State's operator certification program establishes standards for the minimum competency and certification of operating personnel. For systems without properly certified operators, DEQ employs a "conference and conciliation approach." DEQ establishes a compliance schedule, which directs systems to have operators in place by a specified date and refers operators to training classes or study courses as needed.

D. §1420(c)(2)(D): Method of Establishing a Baseline and a Means of Measuring Improvements

DEQ evaluates the effectiveness of this strategy by compiling a database of compliance information for both new and modified systems. DEQ uses this information to compare the compliance rates of systems that have and have not demonstrated capacity. If new and modified system compliance rates are greater than existing system rates, the program can be considered a success. If new and modified system compliance rates are less than or equal to existing system rates, changes will be made to the program to improve compliance rates.

As required by the SDWA, DEQ, OSLI, and WWDO will prepare a report two years afer the date of the development and approval of the strategy, and every three years thereafter, discussing the effectiveness and progress toward improving the TMF capacities of systems in the State. This report will be provided to the governor and made available to the public.

E. §1420(c)(2)(E): Identification of Stakeholders

DEQ involved interested parties in the creation of the Capacity Development strategy, the Capacity Assurance Plan, and during the development of Chapter 22 of the Water Quality Rules and Regulations. DEQ published notices of meetings and requests for public comment in statewide newspapers. DEQ identified the targeted stakeholders as publicly and privately owned water supplies; municipalities;

consulting engineers other interested parties; and staff from local, State, and federal agencies. Members of the Capacity Development Workgroup mirrored DEQs targeted group and included representatives from the Wyoming Association of Municipalities; the Wyoming Association of Rural Water Systems; and local, State, and federal governments and agencies.

III. The Basis on Which the State Believes That the Program Elements it Has Chosen, When Taken as a Whole, Constitute a Strategy

Wyoming's Water Quality Rules and Regulations Chapter 22 "Capacity Development Standards for Public Water Supplies" is the basis of the State's strategy for assisting existing systems with achieving and maintaining capacity. In addition, the June 1999 Capacity Assurance Plan also provides a basis for assisting systems in demonstrating TMF capacity. The DEQ, WWDO, and OSLI will interact with appropriate stakeholders in order to provide assistance to systems on a priority basis.

IV. Implementing the Strategy and Evaluating Progress

DEQ will continue to implement Wyoming's capacity development program in conjunction with EPA Region VIII. DEQ began implementation in January 1999 by sending draft regulations and draft worksheets to those systems required to make a demonstration of adequate capacity including DWSRF loan applicants and new and modified systems applying for construction permits for projects that would not be completed before October 1, 1999. DEQ will gather information on the progress of the strategy during the development of the reports required under the SDWA.

Attachment 1: Summary Tables

Table A1: Methods or Criteria to Identify and Prioritize PWSs in Need of TMF Assistance[5]

	Source of Information[1]							Criteria												Prioritization method[2]		
	On-site capacity assessments	Information from other agencies	Information from local/field staff	Customer complaints	Sanitary surveys/ compliance inspections	Self-assessment questionnaire	Self-referral/request	Compliance	Operator certification	Financial information	SNC status	Source type	Source susceptibility	List of TMF questions or indicator problems	DWSRF application status	System type	Population served	Impact of future regulations	Enforcement orders	Point system	Risk matrix	DWSRF priority method
Alabama	U	U						U		U				U								
Alaska			U					U			U			U						U	U	
Arizona					U	U	U	U	U			U	U			U	U		U			
Arkansas		U						U	U	U		U				U	U			U		
California	U		U		U			U														U
Colorado			U	U			U	U				U										
Connecticut		U		U	U			U	U	U												
Delaware				U	U	U		U	U		U											
Florida	U	U	U	U	U	U	U	U						U	U		U	U	U			
Georgia				U	U		U	U	U		U							U	U			

[5]This table is not comprehensive. Please see the individual State summaries for more information.

	Source of Information[1]							Criteria												Prioritization method[2]		
	On-site capacity assessments	Information from other agencies	Information from local/field staff	Customer complaints	Sanitary surveys/ compliance inspections	Self-assessment questionnaire	Self-referral/request	Compliance	Operator certification	Financial information	SNC status	Source type	Source susceptibility	List of TMF questions or indicator problems	DWSRF application status	System type	Population served	Impact of future regulations	Enforcement orders	Point system	Risk matrix	DWSRF priority method
Hawaii			U		U			U			U			U						U		
Idaho	U				U	U	U	U						U			U					
Illinois	U		U	U	U			U	U		U			U				U				
Indiana	U		U	U	U			U	U	U		U				U	U					
Iowa			U		U		U	U	U		U										U	
Kansas		U	U	U		U		U						U			U					
Kentucky			U		U		U	U		U				U						U		
Louisiana								U			U								U			
Maine	U				U	U	U	U						U				U				
Maryland					U	U	U	U	U	U			U	U		U						
Massachusetts	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U		U	U
Michigan			U		U		U	U			U								U			
Minnesota			U		U			U			U											

	Source of Information[1]							Criteria												Prioritization method[2]		
	On-site capacity assessments	Information from other agencies	Information from local/field staff	Customer complaints	Sanitary surveys/ compliance inspections	Self-assessment questionnaire	Self-referral/request	Compliance	Operator certification	Financial information	SNC status	Source type	Source susceptibility	List of TMF questions or indicator problems	DWSRF application status	System type	Population served	Impact of future regulations	Enforcement orders	Point system	Risk matrix	DWSRF priority method
Mississippi	U				U		U	U	U	U				U		U				U		
Missouri							U	U			U							U	U			U
Montana			U		U	U	U	U	U	U	U	U	U	U		U						
Nebraska					U			U			U			U						U		
Nevada			U		U			U		U	U		U	U			U			U	U	
New Hampshire					U		U	U			U											
New Jersey					U			U			U			U		U	U					
New Mexico					U		U	U								U	U		U			
New York		U	U		U	U	U	U		U	U		U		U			U				
North Carolina					U	U		U			U								U			
North Dakota		U			U			U	U	U	U									U		
Ohio					U			U			U			U								
Oklahoma							U	U			U				U				U			

	Source of Information[1]							Criteria												Prioritization method[2]		
	On-site capacity assessments	Information from other agencies	Information from local/field staff	Customer complaints	Sanitary surveys/ compliance inspections	Self-assessment questionnaire	Self-referral/request	Compliance	Operator certification	Financial information	SNC status	Source type	Source susceptibility	List of TMF questions or indicator problems	DWSRF application status	System type	Population served	Impact of future regulations	Enforcement orders	Point system	Risk matrix	DWSRF priority method
Oregon					U	U		U	U	U			U	U			U			U	U	
Pennsylvania								U	U	U				U		U	U			U		
Rhode Island			U	U	U	U		U	U		U			U	U							
South Carolina					U			U		U												
South Dakota		U	U	U	U	U	U	U	U	U	U		U	U				U		U	U	
Tennessee		U			U			U			U				U							
Texas	U				U			U	U	U				U			U		U	U		
Utah					U			U								U				U		
Vermont			U		U		U	U	U							U	U		U			U
Virginia	U		U	U	U			U	U		U		U	U	U			U		U		U
Washington								U	U													
West Virginia	U		U	U	U	U		U			U			U	U	U		U		U		U
Wisconsin	U	U	U		U		U	U		U												
Wyoming					U			U		U	U											U

1. Many States will retrieve information from existing databases.
2. For details on States' prioritization methods, please see Table A2.

Table A2: Prioritization Methods

	Prioritization			Other Method/Notes
	First Priority	*Second Priority*	*Third Priority*	
AL	Systems with TMF deficiencies.	---	---	Systems are prioritized based on a list of TMF criteria.
AK	Highest ranked systems based on risk level assessment for each area of capacity.	---	---	Points assigned and weighted for several categories (e.g., Operator Certification, Water Rights, By-laws, accounting practices) in each area of capacity.
AZ	Drinking Water Source (surface > ground)	System Type (CWS> NTNCWS> TNCWS)	Population (lower > higher)	After this initial prioritization, systems are evaluated based on 11 other factors.
AR	Small CWSs and NTNCWSs (<10,000 population)	---	---	Points assigned based on violations, presence of certified operator, source type, and finances.
CA	Systems most in need of assistance, based on DWSRF priority list, violations and inspections data, and knowledge of field staff.	---	---	
CO	Systems with violations.	Systems with problems identified by inspection reports, monitoring results, or complaints.	Systems that request TMF assistance.	
CT	Highest priority systems based on financial and technical viability analyses.	---	---	See individual State Summary for more details.
DE	SNCs	Systems with some health related violations in past three years, but currently in compliance.	Systems without health related compliance problems but referred to department for other reasons (e.g., lack of certified operator, failure to submit CCR)	
FL	Systems that are in significant noncompliance or have other types of "indicator problems."	---	---	DEP will coordinate with the Florida Association for Community Action and the Florida Rural Water Association to ensure that systems with a history of acute health risk violations will receive top priority.
GA	Systems most in need of improving TMF capacity, as identified by EPD staff, and systems requesting assistance.	---	---	Prioritization will be based on compliance records, sanitary surveys, complaints, and impact of future regulations.

	Prioritization			Other Method/Notes
	First Priority	*Second Priority*	*Third Priority*	
HI	Five systems in the "needs assistance" category, as designated by TMF capacity evaluations of systems invited to participate. Systems in this category with the lowest number of points earned for capacity will receive highest priority.	---	---	Hawaii will request that systems with a history of significant noncompliance or other capacity problems, as identified by SS results, participate. The capacity evaluation process compares the existing systems against the attributes of a hypothetical system with adequate TMF capacity. The assistance program may expand to more than five systems in the future.
ID	"Critical Problems" (posing immediate health risk)	"Serious Problems" (posing potential health risk, but may not require immediate action)	---	Critical/Serious designations are determined using the State's violation hierarchy. Within each group, population served, willingness to solve problem, and TMF analysis are used to prioritize systems.
IL	SNCs	"Pending Non-Compliance Suppliers" (Systems with inadequate source, treatment capacity, or storage, or with distribution problems.)	Systems with other TMF capacity problems, based on observations of program personnel.	
IN	"At Risk" systems (e.g., unaddressed MCL/TT/Action Level violations; failure to submit monthly operations report; serious operational deficiencies; no certified operator, etc.)	"Marginal Risk" systems (e.g., noncompliance with M&R requirements; no maintenance plan; low storage capacity; failure to follow up on inspection deficiencies, etc.)	"Low Risk" systems (Systems *not* identified by initial screening of compliance information, complaints, operator certification, O&M problems, early warning orders, connection bans, and other data.)	Within each category, systems will be prioritized by source type, system type, and population. Surface water systems, CWSs and NCWSs with susceptible populations, and systems serving >10,000 will be high priority.
IA	Systems out of compliance "Critical" (acute health risk) > "Serious" (chronic, non-acute health risk) > "Minor" (sporadic violations)	Systems currently in compliance with potential problems.	Systems in compliance voluntarily requesting assistance.	Willingness to remedy problem is also considered.
KS	Systems in need of assistance as determined by KDHE.	---	---	Systems are evaluated based on compliance information, TMF information from other agencies, and a TMF survey.
KY	Systems receiving a score of 50 or more points.	Systems receiving a score of 25 or more points.	Systems with production levels reaching design capacity; systems requesting assistance.	Points are assigned based on a list of 20 criteria (e.g., regarding: clear ownership; violations; source protection; record keeping).

	Prioritization			Other Method/Notes
	First Priority	*Second Priority*	*Third Priority*	
LA	Systems currently under an active administrative order; SNCs	Systems with MCL violations in the previous three years; uncorrected physical violations	A random selection of systems from each system type and population category will be chosen for capacity assessments.	
ME	Systems not in compliance (Critical Problem > Serious Problem > Minor Problem)	Systems in compliance with satisfactory evaluation with Potential Problem.	Systems that request assistance.	Critical/Serious/Minor ranking adopted from violation hierarchy based on public health risk that was developed by Iowa DNR. Willingness to cooperate also considered.
MD	Systems most in need of training as determined by assessment and rating process.	---	---	A rating system based on responses to a self-assessment survey, compliance data, operator certification, and sanitary survey results is being developed.
MA	Systems posing the highest public health risk: Direct Impact on the public health (Boil order, do not drink order, SNC, ACO).	Systems with indirect impact on public health violation of technical safeguard	Systems with potential problems as identified in Sanitary Survey, SRF process, CCR reports, complaints, etc.	
MI	Systems not in compliance or with unsatisfactory evaluation. (Critical Problem> Serious Problem > Minor Problem)	Systems in compliance with satisfactory evaluation with Potential Problem.	Systems that request assistance.	Use “Decision Model” (flow chart).
MN	Systems with emergencies and acute disease MCL/TT violations	SNCs with health violations; potential SNCs; systems with MCL/TT violations	Systems with infrastructure deficiencies; training and planning needs	
MS	Systems most in need of assistance based on “capacity points” assigned by regional engineer during sanitary survey.	---	---	Systems are assigned points based on answers to a list of questions for each area of TMF capacity.
MO	Systems with administrative orders for significant noncompliance.	SNCs that have not been issued an administrative order but do not meet the conditions of Bilateral Compliance Agreement.	Systems with potential problems, as identified by operational test data on water quality parameters.	Analysis is also performed upon request by water systems.
MT	Systems with MCL violations or deficiencies that pose an acute health risk; SNCs; GWUDISW systems newly classified as surface water systems.	Systems with non-acute health risk; systems that fail GWUDISW assessment but can pass if improvements are made.	Systems requesting assistance or identified as needing assistance through contact with the system. CWSs and schools given first priority, then other NTNCWSs, then TNCWSs.	

	Prioritization			Other Method/Notes
	First Priority	*Second Priority*	*Third Priority*	
NE	Systems with TMF deficiencies that present a direct or potential threat to public health.	Systems with potentially serious TMF deficiencies.	Systems with minimal deficiencies or that have corrected previously identified deficiencies.	Point system.
NV	Highest ranked systems based on risk factors.	---	---	Nevada has adopted the Oregon Health Division's risk matrix system.
NH	Systems with MCL or monitoring and reporting violations.	Systems with source limitations, piping and storage limitations, and outages.	---	
NJ	CWSs with inadequate capacity serving less than 3,300	NTCWSs with inadequate capacity.	TNCWSs with inadequate capacity.	Inadequate capacity is based on compliance, TMF assessment results.
NM	1) Systems experiencing emergencies 2) Systems with violations that request help	3) Systems with violations that do not request help 4) Systems that request help, but are not in violation	5) Systems with good management (as incentive) 6) All other systems	Age and condition of infrastructure is also considered.
NY	SNCs, MCL violators, repeated emergency outages	TT, major monitoring, or significant sanitary code violators, those facing significant potential violations, those with sanitary survey deficiencies	Systems demonstrating a need although not critical or serious; systems that request assistance; all others	
NC	Systems most in need of assistance as determined by information in Water System Management Plan.	---	---	Prioritization is also based on compliance with drinking water rules, sanitary surveys, administrative penalties, and technical assistance received.
ND	PWSs ranked 10 or higher. (SNC automatically receives 10 points)	Systems receiving 1- 9 points	---	Point system based on 14 factors related to compliance, operator certification, sanitary survey results, and laboratory payment.
OH	SNCs out of compliance with ESTWTR	SNCs with sanitary survey deficiencies	---	
OK	Posing most significant threat to public health	Out of compliance with SDWA; SNCs	Not meeting enforcement milestones; request assistance	
OR	Systems receiving highest number of points in "risk matrix" evaluation.	Priority list is weighted based on population.	---	1-5 points assigned based on each deficiency identified in areas of health/water quality; monitoring and reporting; certified operator; sanitary hazards; source susceptibility; and master plan.

	Prioritization			Other Method/Notes
	First Priority	*Second Priority*	*Third Priority*	
PA	CWSs and NTNCWSs, prioritized based on 11 objective technical, managerial, and financial factors (Tier I) and five subjective factors (Tier II), including willingness to participate.	---	---	Point system. Priority rating system for CWSs is different from system for NTNCWSs.
RI	Level Three. Systems out of compliance that would benefit from assistance	Level Two. Systems in compliance that would benefit from assistance	Level One. Systems currently in compliance	Three tiered PWS ranking scheme.
SC	The State does not provide details on its prioritization method.	---	---	
SD	See Oregon.	---	---	Risk matrix includes financial capacity information. South Dakota uses a modified version of Oregon's prioritization method.
TN	CWSs and NTNCWSs that are SNCs or Potential SNCs	DWSRF applicants lacking TMF capacity.	2nd year: Higher priority will go to NTNCWSs that are SNCs and PSNCs, with an emphasis on systems with inadequate financial capacity.	
TX	Serving 15,000 or fewer with three or more deficiencies on TMF checklist	Serving 15,000 or fewer with fewer than three deficiencies on TMF checklist	---	
UT	"Not Approved" status based on compliance with administrative rules	"Corrective Action" status based on compliance with administrative rules	"Approved" status based on compliance with administrative rules	
VT	All systems requesting assistance.	---	---	TA and financial assistance providers are available to lend assistance to all systems that request it. If resources become more limited, Vermont will use its DWSRF priority ranking system and other criteria to prioritize systems.
VA	SRF applicants with insufficient TMF capacity as determined by State SRF Staff and systems identified through Capacity Assessment process.	—	—	The Capacity Assessment takes into account water system compliance, condition of infrastructure, M & F capacity, and impact of future regulations.

	Prioritization			Other Method/Notes
	First Priority	*Second Priority*	*Third Priority*	
WA	Systems with red, yellow, or blue operating permits and on Compliance Targeting List; systems with red operating permits; systems with blue operating permits	Systems with yellow operating permits	Systems with green operating permits and a capacity deficiency.	Permit color is based on compliance, planning documents, and certified operator.
WV	SRF applicants with insufficient TMF capacity as determined by State SRF Staff and systems identified through Capacity Assessment process.	—	---	The Capacity Assessment takes into account water system compliance, condition of infrastructure, M & F capacity, and impact of future regulations.
WI	PWSs with water quality & sampling noncompliance, CCR noncompliance, that are financially troubled, requesting assistance, referred by DNR regional staff AND dealing with emergency situations.	PWSs with deficiencies in some, but not all, of these areas.	---	Wisconsin may develop a numerical priority scoring system in the future.
WY	Systems in significant noncompliance with SDWA; highest ranked systems based on DWSRF priority ranking system.	---	---	Prioritization based on risk to human health, compliance with SDWA, and affordability criteria.

Table B1: Common Factors That Enhance or Impair Capacity Development

Enhancements	Number of States Identifying Factor
Local funding	10
State education Programs	12
New construction planning provisions	12
SDWA requirements	12
Capacity development authority	13
Technical assistance	14
Source water protection and wellhead protection program	14
Design review requirements	15
Sanitary surveys	16
State funding programs	16
State rules and regulations governing drinking water	16
Industry associations	17
Education and training opportunities	18
State technical assistance programs	18
Partnerships, cooperation and networking among agencies, systems, etc.	25
Federal funding programs (DWSRF, PWSS)	26
Operator certification requirements	29
Impairments	**Number of States Identifying Factor**
Inability of small communities to finance entire cost of operations and capital investment	10
Insufficient water rates	10
High turnover rate in State agencies and lack of resources	11
Unfunded mandates	11
Politics at federal, State, and local level	12
Lack of long range planning	12
Lack of public education and awareness	13
DWSRF loan process is a disincentive to potential applicants	13
Capital funding needs exceed Congressional appropriations	14
New / Proposed regulations	16
Complexity of SDWA	17
small systems inability to understand complex regulations	18
Lack of operator / board member training	20
Lack of financial resources	25
Inconsistencies among agency requirements	26

Table B2: Other Factors that Enhance or Impair Capacity Development

Technical
Establish a program to focus on WQ research, aquiring grant dollars, and improving access to university resources
Establishment of mentoring programs
Creation of a State Operator Certification Training Center
Electronic and Web based communication
Implementing a Monitoring Assistance Program
Promoting regionalization/consolidation (economy of scale)
Financial
An assistance program for very small system training expenses
An assistance program for completing SRF applications
Distribution systems improvement charge (DSIC)
Annual assessment fees to support DW program efforts
Additional requirements for privately owned systems
Private systems qualify for DWSRF funding
Programs to identify at risk systems for free TMF assistance
Financial reporting requirements for small systems
Legal
Use of receivership laws (takeovers)
Legal action is taken against overloaded systems
Tax
Ability for small system operators to utilize water system improvemetns to attain capacity as a capital improvement or operating expense, thereby reducing their taxable income to a small degree.
State sales tax exemption for purchasing materials and exemption of property taxation for publically owned and rural water systems
Exemption from sales tax for municipal equipment purchases
Tax exempt bonds for infrastructure projects

Table C: How the States will Use the Authority and Resources of SDWA[6]

	Helping Systems to Achieve Compliance										Encouraging Partnerships				Helping Systems to Train and Certify Operators			
	On-site visits/assistance	Management/Board member	Improved dissemination of	Long-term/Financial planning	Guidance, templates, or	Self-assessment tool	Better Inter-agency/	Public education	Regional training sessions	"Enhanced" sanitary surveys	System-to-system mentoring	Peer review program	Regionalization studies	Grants for consolidation	Subsidize operator certification costs	Improve training materials and	Expand training methods	Increase frequency/ locations of training sessions
Alabama	U	U																
Alaska			U			U	U			U								
Arizona			U			U	U				U							U
Arkansas	U														U	U		U
California	U				U		U			U								
Colorado	U		U	U	U				U							U	U	
Connecticut	U			U				U	U									
Delaware	U		U			U												
Florida	U			U		U			U									
Georgia	U			U	U					U		U		U	U			
Hawaii	U		U	U		U			U		U				U			
Idaho			U	U	U	U				U								
Illinois	U		U			U												
Indiana	U		U		U	U					U							
Iowa	U	U	U	U		U	U	U		U					U			
Kansas		U		U	U	U												
Kentucky		U		U								U						
Louisiana	U	U		U											U			
Maine			U	U		U		U		U			U		U			
Maryland			U			U												
Mass.	U	U	U	U	U	U	U	U		U	U			U	U	U	U	U

[6] EPA has compiled this table based on submissions of State Capacity Development Strategies. The table may not reflect every element of a State's program. The focus of the table is on new initiatives being developed as part of the State's capacity development strategy for existing systems, and not the State's entire drinking water program.

	Helping Systems to Achieve Compliance										Encouraging Partnerships				Helping Systems to Train and Certify Operators			
	On-site visits/assistance	Management/Board member	Improved dissemination of	Long-term/Financial planning	Guidance, templates, or	Self-assessment tool	Better Inter-agency/	Public education	Regional training sessions	"Enhanced" sanitary surveys	System-to-system mentoring	Peer review program	Regionalization studies	Grants for consolidation	Subsidize operator certification costs	Improve training materials and	Expand training methods	Increase frequency/ locations of training sessions
Michigan	U		U	U		U					U							
Minnesota										U	U	U						
Mississippi	U	U			U		U											
Missouri	U			U	U		U			U								
Montana	U			U	U	U			U	U			U		U	U	U	U
Nebraska		U	U	U	U		U	U		U						U		U
Nevada			U		U			U		U						U		
New Hampshire	U																U	
New Jersey	U		U	U					U									
New Mexico	U	U					U		U					U				
New York	U			U	U	U	U							U				
North Carolina	U					U												
North Dakota	U					U		U										
Ohio	U			U					U						U			
Oklahoma	U						U											
Oregon	U	U	U		U	U		U	U		U							
Penn.	U			U					U				U	U		U	U	
Rhode Island	U		U		U	U		U		U					U			
South Carolina					U	U	U	U										
South Dakota	U	U		U	U	U		U		U								
Tennessee	U	U		U	U	U												
Texas	U				U								U			U		U
Utah	U			U		U							U					

	Helping Systems to Achieve Compliance										Encouraging Partnerships				Helping Systems to Train and Certify Operators			
	On-site visits/assistance	Management/Board member	Improved dissemination of	Long-term/Financial planning	Guidance, templates, or	Self-assessment tool	Better Inter-agency/	Public education	Regional training sessions	"Enhanced" sanitary surveys	System-to-system mentoring	Peer review program	Regionalization studies	Grants for consolidation	Subsidize operator certification costs	Improve training materials and	Expand training methods	Increase frequency/ locations of training sessions
Vermont	U		U		U	U						U	U					
Virginia	U	U	U	U	U			U	U			U	U	U				
Washington	U			U									U					
West Virginia	U	U		U	U	U		U			U	U						
Wisconsin	U		U			U	U				U							
Wyoming	U						U											

Innovative Capacity Development Initiatives for Existing Systems

- Missouri circulated a questionnaire to technical assistance and professional organizations to solicit volunteer assistance.
- Iowa will develop a TMF scorecard that systems will be able to use to determine their TMF capacity relative to other systems in Iowa.
- Kentucky is considering developing a voluntary TMF capacity certification program.
- Several States give applicants for DWSRF funds additional points on the State's priority scale if the proposed project will consolidate or regionalize existing systems.
- Mississippi passed a statute requiring board members of all non-profit, rural water systems and municipalities serving less than 2,500 people to attend 8 hours of management training within two years of being elected or re-elected to the board.
- New York developed a "Capacity Enhancement Resource List" that identifies the resources available to assist PWSs. A companion User's Guide helps those that are unfamiliar with water systems operations to find helpful resources.
- Colorado involves its local health departments in making decisions about how to allocate DWSRF set-aside funds.
- Nebraska's Drinking Water Branch holds regular meetings with the State's planning organizations.
- Texas is in the process of forming regional planning groups to encourage partnerships. Texas also has developed new high school curricula on basic water production for students interested in pursuing a career in water supply.
- To stem the proliferation of small water systems, South Carolina promulgated a new regulation stating: "If an existing public water system is divided into two or more smaller water systems, each of the smaller water systems shall comply with the water quality monitoring requirements of the water system prior to it being divided."

Note: This list is not exhaustive; please see the State Summaries for other State-specific initiatives.

Table D: Establishing a Baseline and Measuring Improvement

	Measures of Improvement																		
	Compliance Information	SNC List	Operator Certification Data	Number of TA Visits	Number of Training Sessions Conducted	Number of Training Session Attendees	Sanitary Survey/CPE Results	Number of Systems Completing TMF Assessment	Feedback from Systems	Results of Periodic TMF Surveys/Self-Assessment	Planning Activities	Source Water Protection Activities	Enforcement Orders	Consolidation	Complaints	DWSRF and Other Grant Allocations	Information from Assistance Providers	System Finances	Infrastructure & Operations Information
Alabama	U									U							U	U	
Alaska	U	U	U		U	U	U		U										
Arizona	U		U	U				U		U	U							U	
Arkansas	U			U		U					U	U				U	U		
California	U		U	U				U			U								U
Colorado	U	U					U												
Connecticut	U	U	U	U			U					U	U	U	U				
Delaware	U		U				U			U									
Florida	U			U	U	U	U	U	U	U	U	U	U	U		U	U		
Georgia	U		U	U										U					
Hawaii										U									
Idaho				U			U	U	U										
Illinois			U							U									U
Indiana	U		U			U	U												U

	Compliance Information	SNC List	Operator Certification Data	Number of TA Visits	Number of Training Sessions Conducted	Number of Training Session Attendees	Sanitary Survey/CPE Results	Number of Systems Completing TMF Assessment	Feedback from Systems	Results of Periodic TMF Surveys/Self-Assessment	Planning Activities	Source Water Protection Activities	Enforcement Orders	Consolidation	Complaints	DWSRF and Other Grant Allocations	Information from Assistance Providers	System Finances	Infrastructure & Operations Information
Iowa	U	U	U	U	U	U		U					U	U		U			
Kansas	U			U	U			U		U	U								
Kentucky	U	U								U	U					U			
Louisiana			U	U		U	U				U						U		
Maine	U	U		U				U		U	U								
Maryland			U				U			U									
Mass.	U	U	U	U	U	U	U	U	U			U	U	U	U	U	U	U	U
Michigan	U	U	U				U	U				U							
Minnesota	U	U																	
Mississippi	U						U												
Missouri	U	U		U	U		U		U				U						
Montana	U		U				U		U			U			U				
Nebraska	U	U		U					U				U						
Nevada	U	U	U	U	U			U											
New Hampshire	U		U							U	U	U			U				
New Jersey	U	U	U		U	U							U			U			

	Compliance Information	SNC List	Operator Certification Data	Number of TA Visits	Number of Training Sessions Conducted	Number of Training Session Attendees	Sanitary Survey/CPE Results	Number of Systems Completing TMF Assessment	Feedback from Systems	Results of Periodic TMF Surveys/Self-Assessment	Planning Activities	Source Water Protection Activities	Enforcement Orders	Consolidation	Complaints	DWSRF and Other Grant Allocations	Information from Assistance Providers	System Finances	Infrastructure & Operations Information
New Mexico	U	U		U			U									U			
New York	U						U			U									
North Carolina			U								U	U							
North Dakota	U	U	U	U	U														
Ohio	U							U					U			U			
Oklahoma	U																		
Oregon	U	U								U	U								
Penn.										U					U				
Rhode Island	U	U	U			U	U			U									
South Carolina	U						U												
South Dakota	U	U	U	U	U			U											
Tennessee		U	U				U												
Texas	U	U	U	U	U	U						U	U	U	U	U			
Utah	U		U				U												
Vermont	U		U							U	U	U	U						U

	Compliance Information	SNC List	Operator Certification Data	Number of TA Visits	Number of Training Sessions Conducted	Number of Training Session Attendees	Sanitary Survey/CPE Results	Number of Systems Completing TMF Assessment	Feedback from Systems	Results of Periodic TMF Surveys/Self-Assessment	Planning Activities	Source Water Protection Activities	Enforcement Orders	Consolidation	Complaints	DWSRF and Other Grant Allocations	Information from Assistance Providers	System Finances	Infrastructure & Operations Information
Virginia	U	U	U				U			U					U		U		U
Washington	U		U								U		U	U					
West Virginia	U	U					U			U							U		U
Wisconsin	U	U	U	U	U		U			U		U	U					U	
Wyoming	U																		

Table E: Identification of Stakeholders and Interested Persons

	Advisory/Stakeholders Committee	Newspaper notice or press release	Mailings	Web Site	Presentation at organization meetings	Public Meeting(s)/ Public Hearing(s)	Newsletters	Capacity Development Trainings/ Workshops
Alabama	U							
Alaska	U		U	U	U	U	U	
Arizona	U	U	U	U				
Arkansas	U		U		U		U	
California	U	U		U		U		U
Colorado	U			U		U		U
Connecticut	U				U	U		
Delaware	U				U	U		
Florida	U		U			U		
Georgia	U	U	U			U		U
Hawaii	U	U	U			U		
Idaho	U	U		U		U		
Illinois	U		U	U	U	U		
Indiana	U		U			U		
Iowa	U	U	U	U	U	U	U	
Kansas	U	U	U	U	U	U	U	
Kentucky		U	U			U		
Louisiana	U				U			
Maine	U	U	U	U				
Maryland	U		U	U	U		U	
Massachusetts	U		U	U	U			U
Michigan	U			U	U		U	
Minnesota	U		U	U	U		U	

	Advisory/Stakeholders Committee	Newspaper notice or press release	Mailings	Web Site	Presentation at organization meetings	Public Meeting(s)/ Public Hearing(s)	Newsletters	Capacity Development Trainings/ Workshops
Mississippi	U					U		
Missouri	U	U		U	U	U	U	
Montana	U		U		U	U		U
Nebraska	U		U	U		U		
Nevada	U							
New Hampshire	U							
New Jersey	U	U	U	U	U			
New Mexico	U		U		U	U		
New York	U					U		
North Carolina	U		U		U	U		
North Dakota		U	U			U		
Ohio	U					U		
Oklahoma						U		
Oregon	U		U					
Pennsylvania	U	U		U	U			
Rhode Island	U		U	U				
South Carolina	U			U		U	U	
South Dakota	U	U		U	U	U		
Tennessee	U			U	U	U		
Texas	U				U			
Utah	U	U				U		
Vermont	U		U	U		U		
Virginia	U							
Washington	U		U	U				U

	Advisory/Stakeholders Committee	Newspaper notice or press release	Mailings	Web Site	Presentation at organization meetings	Public Meeting(s)/ Public Hearing(s)	Newsletters	Capacity Development Trainings/ Workshops
West Virginia	U	U	U	U		U		
Wisconsin	U		U	U		U	U	
Wyoming	U	U		U		U		

Other Ways of Identifying Stakeholders and Interested Persons and Soliciting Public Comment

- Iowa awarded Continuing Education Units to certified operators for attending capacity development public meetings.
- Maryland had seven representative systems complete and comment on a draft version of the proposed Capacity Development self-assessment survey.
- Connecticut contracted with five technical assistance providers to educate and solicit comments from their constituents.
- South Dakota televised its public meetings on the capacity development strategy.
- Nebraska combined its capacity development meetings with those on the IESTWR and D/DBP Rules.
- Rhode Island conducted a web search of public interest organizations in the State and participated in an Earth Day Festival.