Capacity Development Program Strategy

Public Water Supply Section

North Carolina Department of Environment and Natural Resources

August 2000

1.0 Introduction

In 1996, the federal Safe Drinking Water Act (SDWA) was amended to include a new provision called ACapacity Development.≅ Section 1420 of the Act requires states to establish a capacity development program designed to ensure that the state's public water systems have the technical, managerial and financial ability to meet federal and state requirements. Each state's program must contain two elements; (1) states must have the legal authority to ensure that all new public water systems have the technical, managerial, and financial capacity to meet federal and state requirements; and (2) states must establish a capacity development strategy to assist existing public water supply systems in improving their technical, managerial and financial capacity to meet federal and state requirements.

To establish North Carolina's capacity development authority to ensure that all new, community and non-transient non-community water systems demonstrate technical, managerial and financial capacity; stakeholders and the Department of Environment and Natural Resources (Department) determined that revisions/additions to the ARules Governing Public Water Systems≅ were necessary. Specifically, it was determined that rules concerning the approval of plans, specifications and reports for new system construction must be revised. It was also determined that the regulatory requirements for expanding or altering an existing system should continue to be the same as the requirements for new system construction. Existing systems planning alterations or expansions may inadvertently threaten their successful operation if changes are not carefully planned and managed. Therefore, North Carolina established rule revisions/additions, effective October 1, 1999, that provided both the authority for new systems and the primary component of the strategy for existing systems.

The purpose of this document is to describe how North Carolina has established and implemented a capacity development strategy program to assist existing public water systems in improving their technical, managerial and financial capacity.

2.0 Interested Persons

In accordance with the SDWA and USEPA guidance, this section of North Carolina's strategy describes:

> "An identification of the persons that have an interest in and are involved in the development and implementation of the capacity development strategy."

In May 1995, the Department established a Viability Task Force to develop an initiative to restrict the proliferation of new nonviable water systems and to enhance the viability of

existing systems. The Viability Task Force Report, dated December 16, 1996 provided a basis for the development of the Capacity Development Program.

Using information from the Viability Task Force work, the Department's Public Water Supply (PWS) Section created a list of potentially interested parties and stakeholders. All people on the mailing list were sent a letter on October 2, 1998 inviting them to participate in the development of the program for new and existing systems and to serve on the Capacity Development Advisory Committee (see Attachment 1). To facilitate development of the capacity development program and the rule making process, five Advisory Committee meetings were held between October 1998 and March 1999. At each of the meetings, some time was scheduled for informative presentations during whole group sessions. There was also time scheduled for small group discussion. The Advisory Committee reviewed draft proposals and rules prepared by PWS staff, and provided input, concerns, corrections and direction on the development of the capacity development program.

All new and/or revised temporary and permanent rules concerning Division of Environmental Health programs must be presented to and approved by the Commission for Health Services (CHS). The PWS Section presented North Carolina's capacity development rules concerning new and existing community and non-transient, non-community public water systems to the CHS on two occasions. On May 19, 1999, the PWS Section presented the proposed temporary rules to the CHS. The rules were approved and became effective October 1, 1999. On November 19, 1999 the PWS Section presented the permanent capacity development rules to the CHS and received approval. At both CHS meetings, the public was given an opportunity to comment on the proposed rules. No comments were made during either of the meetings.

On August 16, 1999, a Notice of Public Hearing was mailed to all community and NTNC water systems and to a list of professional engineers that the PWS Section maintains. The notice informed the parties about a Public Hearing scheduled for September 21, 1999 concerning the proposed rule changes for new and existing water systems. The parties were informed that the PWS Section would receive comments concerning the rules through September 21, 1999. No public comments were made at the Public Hearing or during period for accepting written public comment. The Department did receive three written comments concerning the temporary rules. The PWS Section reviewed these public comments and revised the proposed permanent rules.

Prior to the proposed permanent rules going to the North Carolina Legislature, the PWS Section was required to submit the proposed rules to the Rules Review Commission. During the December 16, 1999 Rules Review Commission meeting, Commission staff presented the rules. The proposed rules were approved without comment by the members of the Rules Review Commission or by the public. The permanent rules become effective August 1, 2000.

3.0 Identification and Prioritization of PWS Systems

In accordance with the SDWA and USEPA guidance, this section of North Carolina's strategy describes:

> "The methods or criteria that the State will use to identify and prioritize the public water systems most in need of improving technical, managerial and financial capacity."

During the Advisory Committee meetings, the stakeholders agreed it is difficult for the state, or other technical service providers, to affect improvements in the technical, managerial or financial capacity of a PWS system **after** a problem has been identified. Also, it was suggested that many existing systems begin to experience capacity problems as a result of poorly planned and/or financed expansions. Therefore, North Carolina's primary method for evaluating the need for improving technical, managerial and financial capacity of existing systems is the implementation of the rule revisions/additions, effective October 1, 1999 concerning the approval of plans, specifications and reports for new and existing system construction. The comprehensive requirements specified by the revised rules for obtaining authorization to alter or expand an existing system include the approval of engineering plans and specifications and the completion of a Water System Management Plan (WSMP). The WSMP is required to contain documentation of the system's managerial and financial capacity. The requirements of the revised rules are detailed in Section 5.0.

North Carolina's PWS Section will also identify and prioritize systems in need of improving technical, managerial and financial capacity using the following tools:

- North Carolina's Significant Non-Compliance (SNC) list
- Sanitary Surveys and Technical Assistance
- Administrative Penalties
- Technical Assistance from North Carolina's Rural Water Association (NCRWA)

4.0 Factors That Impact Capacity Development

In accordance with the SDWA and USEPA guidance, this section of North Carolina's strategy describes:

> "The institutional, regulatory, financial, tax or legal factors at the Federal, State, or local level that encourage or impair capacity development."

The primary regulations that encourage capacity development in North Carolina are the following rules that were revised to establish a capacity development program for new and existing systems:

North Carolina Administrative Code, Title 15A, Subchapter 18C,

Section .0300 Submission of Plans: Specifications: and Reports
Section .0301 Applicability: Prior Notice
Section .0302 Submittals
Section .0303 Submissions Required by Engineer and Applicant
Section .0304 Application for Approval: By Whom Made
Section .0305 Approvals Necessary Before Contracting or Constructing
Section .0306 Changes in Engineering Plans or Specifications After Approval
Section .0307 Engineer's Report and Water System Management Plan
Section .0308 Engineering Plans and Specifications
Section .0309 Final Approval
Section .1304 Water System Operation and Maintenance

These revised rules (see Attachment 2) are discussed in Section 5.0.

Additional requirements applicable to public water systems in North Carolina that encourage capacity include:

- North Carolina Public Utilities Laws and Regulations
- Local Government Budget and Fiscal Control Act
- Rules Governing Water Treatment Facility Operators

North Carolina Public Utilities Laws and Regulations

The North Carolina Utilities Commission (NCUC) is responsible for implementation of the North Carolina public utilities laws and regulations applicable to public water supply systems. These rules require the NCUC to issue Orders Granting Franchise and Approving Rates and Orders Recognizing Contiguous Extension and Approving Rates. In providing recommendations to the NCUC regarding issuance of these orders, the public staff considers the financial strength of the utility. In addition, the NCUC rules require that utilities furnish a bond to the Commission "in an amount not less than $10,000, sufficient to provide financial responsibility in a manner acceptable to the Commission."

Local Government Budget and Fiscal Control Act

The North Carolina Local Government Commission (LGC) was established by the General Assembly in 1931 to assist local governments in refinancing and restructuring existing burdensome debts. The chief responsibilities today include authorizing and selling local government debt and assisting and monitoring the local government fiscal programs. The LGC was given extraordinary enforcement powers, including the power to totally control the financial aspects of a local government when it defaults on a debt service payment or when the Commission thinks it will default on a future debt service payment. However, the LGC has a long history of successfully working with local governments, causing the use of these powers to be seldom used.

The LGC has established financial procedures that local governments must follow in order to be approved for a loan for water system expansion projects. To evaluate the feasibility of proposed projects that require a local government to incur debt, the LGC staff consider factors including:

- Purpose of the proposed project and necessity
- Source of water supply for current and future needs
- Connection policy, mandatory or optional, and expected connection percentage
- Assessments, availability fees, impact fees
- Current and proposed rate structure
- Public hearings and market research
- Preliminary engineering report and feasibility study
- Cost estimates and contingency
- Findings from the last annual audit

The LGC will approve the issuance of the loan if they determine:

- The project is necessary and expedient
- The unit of local government's debt management procedures and policies are good
- The sums to fall due under the contract are adequate and not excessive
- An increase in taxes, if necessary to meet the sums to fall due, will not be excessive
- The unit of government is not in default in any of its debt service obligations

Rules Governing Water Treatment Facility Operators

The Rules Governing Water Treatment Facility Operators (North Carolina Administrative Code, Title 15A, Subchapter 18D) were codified February 1, 1976 and amended on May 3, 1993, May 1, 1994 and August 1, 1998. These rules provide the regulatory framework for the training and certification of public water system operators and for the classification of the water systems. These regulations require an operator in responsible charge for all community and non-transient non-community public water systems and for some transient non-community systems. Properly trained and certified system operators are important for systems to be managed, maintained and operated in compliance with the regulations promulgated under the SDWA.

5.0 Use of Authorities and Resources to Enhance the Technical, Managerial and Financial Capacity

In accordance with the SDWA and USEPA guidance, this section of North Carolina's strategy describes:

> "How the state will use the authorities and resources of the SDWA or other means to: assist public water systems in complying with drinking water regulations; encourage development of partnerships between public water systems to enhance the technical, managerial and financial capacity of the systems; and assist public water systems in the training and certification of operators."

Revised Rules for Submission of Plans, Specifications and Reports for New, Expanding and Altered Systems

To support the capacity development program objectives to ensure that all new, altered or expanded community and non-transient non-community water systems demonstrate technical, managerial and financial capacity, the stakeholders determined that revisions/additions to the ARules Governing Public Water Systems≅ were necessary. It was also determined that due to North Carolina=s rule making procedures, the revisions/additions needed to be established as temporary rules in order to meet the October 1, 1999 deadline. According to State procedures the permanent rule revisions (see Attachment 2) will become effective August 1, 2000.

Title 15A NCAC 18C Section .0300 - Submission of Plans: Specifications: and Reports was amended to include capacity development requirements. The existing Section .0300 rules (effective January 1, 1977) required the submittal and approval of engineering plans and specifications as documentation of technical adequacy before the construction alteration or expansion of a public water supply system. For more complex projects an Engineer's report was required. Section .0307(b) was amended to require the submittal of an Engineer's report for all projects. Significant new information requirements for Engineer's reports include:

- A statement regarding the system's maximum daily treated water supply and maximum daily demand
- Consideration of alternative plans for meeting the water supply requirements of the area, including obtaining water service from an existing system
- For existing systems, prioritized list of infrastructure improvements

To address the managerial and financial capacity requirements, an owner of a public water supply system is required to submit a Water System Management Plan (WSMP) in

accordance with Rule .0307 (c). Significant information requirements for a WSMP include:

- Description of the system organization and ownership structure
- Description of management qualifications and training plan
- Policies on cross-connection control, customer service, budget and rate structure, response to water quality problems and safety
- System monitoring and record keeping requirements
- Financial Plan

The revised rules include a second step in the approval process before construction of a new, altered or expanded existing water system. The first step of the approval process is the long-standing requirement for approval of engineering plans and specifications. The second step of the process is the issuance by the Department of an Authorization to Construct letter [see Rule .0305(a) and Attachment 2 of the guidance document]. This authorization will be issued to the applicant following completion and submittal of the Engineer=s Report and WSMP in addition to approval of engineering plans and specifications.

Rule .0303 requires the submittal of an Engineer=s and Applicant=s certification after the water system is constructed. The Engineer=s certification shall state that the system was constructed in accordance with the approved engineering plans and specifications. The Applicant=s certification shall state that an Operation and Maintenance Plan and Emergency Management Plan have been completed in accordance with the rules. These plans must be accessible to the operator at all times and available to the Department upon request. After the Department receives the two certifications, a final approval letter is issued in accordance with Rule .0309.

To determine if a water system meets North Carolina=s capacity development requirements for new, altered or expanded water systems the following events must occur:

1. The applicant shall submit a an Engineer=s Report, engineering plans and specifications and a WSMP.
2. If the Engineer's Report is complete and the engineering plans and specifications meet all requirements, the Department shall approve engineering plans and specifications.
3. If, in addition to having approved plans and specifications, the Department determines that the WSMP is complete, the Department shall issue an Authorization to Construct letter.
4. The applicant shall submit an Engineer=s certification and an Applicant=s certification.

5. The Department shall issue a final approval letter.
6. The new construction, alteration or expansion project may be placed into service.

The PWS Section developed a guidance document entitled "Public Water System Capacity Development Guidance Document" to assist public water systems in complying with the new regulatory requirements (see Attachment 3).

Annual Monitoring Status & Sampling Schedule Report

In an effort to provide effective technical assistance the PWS prepared and mailed the first annual Monitoring Status & Sampling Schedule report to each community and non-transient non-community system in 1999. This report provides the dates that the last compliance samples were collected and when the next samples are due. It also provides their entry point identification codes and the frequencies that each entry point must be tested. The system officials are asked to verify the information and to return a report listing any discrepancies to the PWS Section for evaluation and corrections to the data base. The system officials are asked to use this report to aid with scheduling of required monitoring.

Compliance Inspection Report

For years the PWS Section has used its authority and resources to visit public water systems on a regular basis. During these visits technical assistance is provided and violations with respect to the *Rules Governing Public Water Systems* are noted. Historically, only if operational or construction violations were noted, the PWS inspector would send a Notice of Violation letter to the PWS system owner, after returning to the Regional Office. Typically, the letter would cite the appropriate rule, describe the violation and required action, and specify a date for compliance. During the past year, as staff was working with stakeholders groups to develop a Capacity Development strategy, it became evident that this process would be more effective if, a "Compliance Inspection Report" could be issued at the time of the visit. As appropriate, the report would document that the system was in compliance with the *Rules Governing Public Water Systems* or would serve as a field generated Notice of Violation. The benefits of the field generated Compliance Inspection Report include:

- For well constructed, managed and operated systems, the report can be used to provide owners and/or responsible persons with documentation to indicate that their system was determined to be in compliance with the *Rules Governing Public Water Systems.*

- Owners and/or responsible persons will receive immediate written documentation of a violation. This will reduce the potential for miscommunication and subsequent misunderstandings.

- Immediate written documentation will provide useful evidence in the event of future legal proceedings.

- Fewer man-hours will be required to issue NOVs by reducing the administrative support required to generate formal letters.

A PWS work group was formed and worked to develop a multi-copy form that could be used by regional staff to issue Compliance Inspection Reports in the field. The work product was a four-copy form designed for distribution to 1) recipient in the field (i.e., responsible person, operator) 2) system owner 3) PWS Regional office file and 4) PWS central file.

After successful pilot testing, the Compliance Inspection Report form was provided for regional staff use in July 2000. A copy of the report is provided as Attachment 4.

Technical Assistance to Small Water Systems

The Safe Drinking Water Act has added tremendously to the responsibilities and workload of public water system owners/operators. All areas of water system operation have increased in complexity. While the water system owner/operator has had to call on the state for assistance more heavily than ever before, the PWS Section field staff has increased very little. The result is limited technical assistance available to the water systems. However, some relief is provided by the use of funds from a State Revolving Fund set-aside account to provide continuing funding for three full-time Environmental Technician IV positions. These positions have increased the ratio of field staff to water systems and allow each field staff to devote a greater percentage of time to technical assistance. The detailed specifications for technical assistance tasks are included in Attachment E of the State Revolving Fund Intended Use Plan for fiscal year 1999.

Transient Non-Community Water Systems

From the inception of the Safe Drinking Water Act in 1974, the very small transient non-community (TNC) water systems have been a concern of Congress, which recognized the need for regulation of these systems to protect public health. For states with large numbers of transient systems such as North Carolina, the funding was not provided to adequately address the transient problem. For years North Carolina implemented the drinking water program in accordance with the APriorities Guidance≅ from EPA which focused the limited program resources available on the most significant issues. The State Revolving Fund set aside for State Program Management now provides North Carolina with the opportunity to initiate enforcement and oversight activities of the transient systems to include:

- Identification of TNC systems not on inventory
- Verification and maintenance of the TNC inventory
- Initial sanitary surveys and follow-up surveys every ten years
- Compliance and enforcement work including automated violation letters
- Follow-up actions to contamination and issuance of boil water notices
- Technical assistance

As stated in Attachment F of the State Revolving Fund Intended Use Plan for fiscal year 1999, the funds from the State Program Management set-aside are used to provide continuous funding for ten engineering positions (seven in field offices), one Water Plant Consultant, one Computer Analyst, one Data Entry Specialist and one Processing Assistant.

North Carolina's Wellhead Protection Program

North Carolina has an established EPA approved Wellhead Protection (WHP) Program. The WHP Program is a voluntary program intended for city and county governments and water supply operators that wish to develop and implement a plan to provide added protection to local ground water supplies.

Local governments and public water supply systems enhance the technical and managerial capacity of their systems by developing a local WHP Plan. The first step in developing a WHP Plan is to establish a local planning team. It is the responsibility of the planning team to determine the appropriate protection strategies for local well systems. This determination is made by first identifying the recharge area which supplies ground water to a well. Once this AWellhead Protection Area (WHPA)≅ has been delineated, an inventory of potential contaminant sources (PCSs) is conduced to gather information concerning the nature and the magnitude of the threat posed by the PCSs. This inventory includes conducting windshield surveys, conducting interviews with owners and operators of PCSs, and examining available information contained in database maintained by various local, state and federal agencies. The inventory catalogues all potential sources of ground water contamination occurring within the WHPA. Potential sources of contamination found within a WHPA must then be managed or eliminated. The planning team is responsible for developing management strategies to reduce the potential risk posed by the PCSs to their water supplies.

A local WHP Plan also requires the development of a contingency plan for responding to disruptions of the public water supply caused by contamination. A contingency plan often includes establishing agreements with neighboring water systems for the provision of water during emergencies and thus encourages the development of partnerships between public water systems.

Once a Wellhead Protection Program is in place, continued administration of the program is necessary in order for it to be successful. Administration includes the establishment of WHPAs for new wells, periodic well and well site inspection, periodic updating of contaminant source inventories, and the review and revision of WHP management strategies.

North Carolina's Source Water Assessment Program (SWAP)

For each of the approximately 10,500 PWS intakes in the state, the PWS Section will complete a source water assessment in accordance with the USEPA approved Source

Water Assessment Program (SWAP) Plan. As required the plan details how the state will:

- X delineate source water assessment areas,
- X inventory significant contaminants in these areas, and
- X determine the susceptibility of each public water supply to contamination.

The state plans to provide maps and a written report summarizing the results of the assessments which will include an inherent vulnerability rating, contaminant inventory rating, and susceptibility determination for each system. There will be no financial burden on the PWS systems for this work as the state will complete the assessments using funds from a State Revolving Fund (SRF) set-aside account.

The results of the source water assessments will enhance the technical, managerial, and financial capacity of PWS systems to meet drinking water standards by:

- X providing PWS systems information on potential contaminant sources in their delineated areas, and
- X providing the basis for planning and implementing source water protection strategies, and
- X providing information required to be include in consumer confidence reports.

Using the results of the source water assessments for developing strategies for source water protection, the state will encourage all PWS system owners to implement efforts to manage identified sources of contamination. This will enhance the technical, managerial, and financial capacity of PWS systems to meet drinking water standards. The goal is to reduce or eliminate the potential threat to drinking water supplies through locally implemented and supported regulatory or statutory controls or by using voluntary measures supported by an involved local community. These efforts may include expanding the PWS system's control over a larger portion of land identified as the delineated source water assessment area. This expansion of control could include zoning, easements, or land acquisition implemented by the local government.

Administrative Penalties

North Carolina has an established enforcement program process for issuing Administrative Orders and Administrative Penalties to PWS systems that violate the *Rules Governing Public Water Supplies*. To date, the consequence for non-compliance has most often been the assessment of a penalty. Frequently, the penalty is issued against a PWS system that is not in compliance because they lack financial capacity, and therefore the issuance of a financial penalty does nothing to improve the ability of the system to return to a state of compliance. Therefore, the PWS Sections plans to provide an alternative to the payment of penalties in future Administrative Penalty letters. The alternative will be to develop and submit a complete WSMP. In this plan, the owner of the system would describe specific managerial and/or financial plans to be implemented to ensure future compliance with the *Rules Governing Public Water Supplies*.

Revised Penalty Calculation Procedure

In discussions with Capacity Development stakeholders groups, it became evident that the process for determining the appropriate administrative penalty for water system construction violations needed to be revised to create a greater deterrent for non-compliance. Prior to the revision of the rules in Section .0300 – Submission of Plans: Specifications: and Reports, administrative penalties for construction in violation of these rules were generally assessed at $1,000 for existing systems and $10,000 for new systems.

A Public Water Supply work group was formed and developed a penalty matrix for calculating administrative penalties for violation of the two primary requirements in Section .0300. Factors in the penalty matrix include cause, potential effect on public health, population effected and previous compliance record. Based on the penalty matrix the administrative penalty amount for failure to obtain an Authorization to Construct can range from $1,000 to $8,500. The penalty amount for failure to obtain Final Approval can range from $1,000 to $14,500. Therefore, the maximum penalty for constructing and placing an unapproved system in operation for public consumption is currently $23,000.

Technical Assistance from North Carolina's Rural Water Association

The North Carolina PWS Section entered into a contract with the North Carolina Rural Water Association (NCRWA) to provide technical assistance to small water systems (<10,000 people) through circuit riders. This contract is funded by a State Revolving Fund (SRF) set-aside account. The objective of the contract with NCRWA is to provide technical assistance to small water systems for the following types of problems:

- Compliance and Treatment-- interpreting SDWA rules, understanding monitoring requirements, understanding treatment requirements and techniques.

- Operation and Maintenance-- periodic training on proper operation and maintenance of treatment equipment, pumps, motors, pipes, valves, fire hydrants, and meters, and on water conservation, including leak detection.

- Management Techniques-- training and assistance in preparing budgets, doing rate studies, adopting water use rules and regulations, and in preparing for long term financial planning to ensure the long term financial needs of the system will be achieved.

For the NCRWA contract, one short-term measurable goal will be returning systems to compliance because they have obtained the knowledge to comply with regulations. Many of the benefits to the systems will be long term. Through the knowledge and improved management and operational skills acquired, they will be able to improve their compliance with the Safe Drinking Water Act and the quality of water served to their citizens. Additional measures will be the number of systems provided technical

assistance, the hours of assistance provided by the circuit rider, and the number of systems where problems are resolved.

Operator Training

The state of North Carolina has approximately 6,500 certified water treatment plant operators. The operator certification program has been mandated by North Carolina general statutes and rules since 1976. Due to the fact that North Carolina does not have a formally designated training center for operations personnel, the training of these operators has been accomplished by the following organizations.

- The North Carolina Waterworks Operators Association
- The North Carolina Rural Water Association
- The North Carolina American Waterworks Association
- The PWS Section

These agencies have worked cooperatively, in a concerned effort to train the water operators of North Carolina. Their collaborative mission is not only to educate, but to encourage and elevate the standards of all waterworks professionals.

The North Carolina Waterworks Operators Association - Founded in 1939, this association has 1,400 members statewide. The five Sections hold quarterly educational meetings for operators and sponsors two operator training schools annually. These schools are mandatory for operators who are trying to become certified or advance in their certification. A day long seminar is held in conjunction with one of these schools, designed to provide professional development and continuing education for advanced operators.

The North Carolina Rural Water Association - This non-profit association has 750 members in North Carolina and has been in existence for 21 years. Their goals are to provide training and technical assistance to small and rural water systems in the state. They provide organized training activities for operators of small systems through one day seminars on relevant topics throughout the state. This association also holds a two day annual conference that provides an opportunity for operators to acquire continuing education and professional development.

The North Carolina American Waterworks Association - This non profit association has 1200 members in North Carolina and is 76 years old. This association provides training schools for distribution, meter technicians, and backflow/cross connection personnel as well as specialty seminars on other water treatment related topics. They also provide an annual conference that provides operators an additional 2 2 days of continuing education and professional development.

The Public Water Supply Section of the Division of Environmental Health - This state agency provides oversight of the public water supply program in North Carolina, including the operators certification program. They work cooperatively with the

organizations above in an effort to provide training that is consistent with the goals of the division and the needs of the industry. They also sponsor one day seminars and workshops for operators.

A contract with the NC Waterworks Operators Association is funded by a State Revolving Fund (SRF) set-aside account. The objective of the contract is to provide continued funding for a registrar position to work within the above described organizations, to coordinate the training activities, publish a newsletter and training schedule, register operators for the schools and to keep records on the continuing education hours completed by operators.

6.0 Monitoring Improvement in Capacity

In accordance with the SDWA and USEPA guidance, this section of North Carolina's strategy describes:

> "How the State will establish a baseline and measure improvement in capacity with respect to national primary drinking water regulations and State drinking water laws."

As described above, the primary component of North Carolina's capacity development program is evaluation of technical, managerial and financial capacity during the planning stages of new construction, expansion or system alteration. Therefore a key indicator of water system capacity is compliance with the requirements specified in Section .0300 of the *Rules Governing Public Water Systems.* Specifically the PWS plans to use existing databases to track the following information for public water systems:

- Number of PWS systems with approved plans and specifications.
- Number of PWS systems with a complete Water System Management Plan.
- Number of PWS projects with a submitted Engineer's certification to document that the system is constructed in accordance with approved plans and specifications.
- Number of PWS projects with a submitted owner's certification to document that the system has an Operation and Maintenance Plan and an Emergency Management Plan.
- Number of PWS systems that have an appropriate certified operator in responsible charge.

The above information, in addition to compliance information will be used to measure improvements in capacity.

Also, the PWS Section will track the number of water supply intakes with complete Wellhead Protection Plans and/or Source Water Assessments as a measure of improved capacity.

7.0 Summary

North Carolina began the development of a strategy for enhancing the technical, managerial and financial capacity of PWS systems with the establishment of a Viability Task Force in May 1995. The work of this Viability Task Force provided a foundation from which the capacity development program, required by the 1996 Amendments to the SDWA, was developed. Stakeholders, many of whom were members of the Viability Task Force, provided direction and guidance to the PWS Section staff during the development of the authority to ensure new system capacity and the strategy to enhance existing system capacity. Based on this input, the rules in Section .0300 of the *Rules Governing Public Water Systems* (see Attachment 2) were revised to establish the regulatory authority to ensure new system capacity and to provide the primary components of the strategy to improve the capacity of existing systems.

Through recent SRF funding the PWS Section has been able to develop and implement programs, initiatives and contracts intended to provide services and products to existing systems. These efforts are intended to assist PWS systems in acquiring and maintaining technical, managerial and financial capacity. Also, the North Carolina Utilities Commission and the Local Governments Commission continue implement very effective programs intended to ensure the viability of existing PWS systems.

The PWS Section recognizes that for the existing system strategy to be successful, it will need to be frequently evaluated and modified as necessary. The PWS Section will periodically reconvene the stakeholder to group provide suggestions and guidance for revisions to the capacity development strategy.