Arkansas Capacity Development Strategy

For

Existing Public Water Systems

Engineering Section
Arkansas Department of Health

Revision 6
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Compliance with SDWA Requirements for Capacity Development

In 1996, Congress reauthorized the Safe Drinking Water Act (SDWA). As a part of the SDWA reauthorization, a Drinking Water State Revolving Fund (DWSRF) was established for states to finance infrastructure improvements for public water systems. In order to avoid withholding of a portion of a state's share of the DWSRF by the Environmental Protection Agency (EPA), states were required to establish capacity development programs. Section 1420 of the revised SDWA requires states to establish capacity development programs that are designed to ensure that the state's public water systems have the technical, managerial, and financial capability to meet EPA and state requirements. Each state's capacity development program must contain the following elements. States were required to obtain authority to prevent new Community and Non-Transient Non-Community (NTNC) water systems from commencing operation if they lack adequate technical, managerial and financial capability. No system can receive DWSRF money unless they have adequate technical, managerial and financial capacity unless the DWSRF money will ensure the system attains technical, managerial and financial capacity. States were required to develop a strategy to address the enhancement of capacity of all existing water systems. This document deals primarily with the activities of the Arkansas Department of Health (ADH) Engineering Section. The ADH is the State Primacy Agency in Arkansas. The Engineering Section of the ADH is responsible for the oversight of SDWA activities and for the development and implementation of the capacity development program in Arkansas. This document deals only with this aspect of capacity development, the strategy to address the capacity of existing systems.

New Systems Capacity Development

The Arkansas Department of Health *Rules and Regulations Pertaining to Public Water Systems* include requirements for technical, financial, and managerial capacity for new Community and NTNC water systems in Arkansas. Section VII.H. of the *Rules and Regulations Pertaining to Public Water Systems* requires demonstration of a system's technical, financial, and managerial capacity in a written long-range plan. Requirements to demonstrate a new system's technical, financial, and managerial capacity are also required in a preliminary report for all new Community and NTNC water systems in Section XX.

DWSRF Requirements for Capacity Development

The Arkansas Natural Resources Commission (ANRC) administers the DWSRF loan program in Arkansas. The loan recipient priority list and overall oversight of the DWSRF program are the responsibility of the ADH Engineering Section. The initial determination for eligibility for a DWSRF loan from ANRC must be made on the front end from the preliminary engineering report. To be eligible for a loan the system must have adequate technical, financial and managerial capacity, or the project must provide this to the system. The ADH review of the final plans and specifications will determine if the system has adequate technical capacity. The ANRC makes the determination whether the system has adequate financial capacity. Both ADH and ANRC look at aspects of managerial capacity.

SDWA Requirements for a Capacity Development Strategy for Existing Public Water Systems

Section 1420(c) of the SDWA requires the State of Arkansas to develop a Capacity Development Strategy for existing systems. The state was required to receive approval of the Capacity Development Strategy from EPA by September 30, 2000, or the state could face a withholding of a portion of the DWSRF Capitalization Grant. The State was required to consider, solicit public comment on, and include as appropriate the following five elements in the strategy:

A) The methods or criteria that the Arkansas Department of Health will use to identify and prioritize the public water systems most in need of improving their technical, managerial, and financial capacity.

B) The factors that encourage or impair capacity development in the State of Arkansas. These factors include the "institutional, regulatory, financial, tax, or legal factors" that exist at the Federal, State, or Local level that encourage or impair capacity development.

C) The use of ADH or other state authorities and other means to:

   a. Assist PWSs in complying with the National Primary Drinking Water Regulations (NPDWRs).

   b. Enhance technical, managerial and financial capacity by encouraging the development of partnerships between Public Water Systems (PWSs).

   c. Assist PWSs in the training and certification of their operators.

D) How ADH will establish a baseline and measure improvements in the capacity of PWSs under their jurisdiction. This programmatic element includes the tools that ADH will use to produce and submit a report to Arkansas' Governor on the efficacy of the capacity development strategy and progress made toward improving the technical, managerial, and financial capacity of PWSs.

E) The procedures used by ADH to identify and involve stakeholders in the creation and implementation of the capacity development strategy.

Existing Systems Capacity Development Strategy (The Five Elements)

Element A

Description of the methods or criteria that the Arkansas Department of Health will use to identify and prioritize the public water systems most in need of improving their technical, managerial, and financial capacity.

The Arkansas Department of Health's Engineering Section has developed a capacity rating system for small (<10,000 population) Community and NTNC public water systems. Systems are ranked in two areas, 1) technical and operational and 2) financial and managerial. Each year the ratings of systems are reviewed by the Capacity Development Coordinator in conjunction with the licensing staff, enforcement staff, and district staff as necessary. The final list is made available to ADH staff on the Engineering LAN system. Additionally, the ANRC personnel are contacted for updating financial criteria for the financial and managerial rating. These priority lists are used to determine which systems will receive technical assistance from the ADH's two Small Systems Technical Assistance Contracts. The ADH's two technical assistance contracts are for Technical and Operational Capacity Development and for Financial and Managerial Capacity Development.

Technical and operational ranking

The priority ranking of small Community and NTNC public water systems for the technical and operational criteria includes the following factors: 1) Maximum Contaminant Level (MCL) or treatment technique violations during the previous 2 years, 2) presence of a properly certified operator, and 3) the type of system. Points are awarded to systems as follows:

- 10 points for each MCL or treatment technique violation of the SDWA for the previous two years. No distinction is made between systems on the Significant Non-Compliance (SNC) list and those that are not on the SNC list.
- 20 points are added to a system that does not have a certified operator of the required level.
- 0 points for systems that purchase water or that are ground water systems, 5 points for ground water systems under direct influence of surface water (GWUDI), and 8 points for surface water systems.

The points for each category are totaled and systems scoring the highest number of points receive assistance first.

Financial and managerial ranking

The priority ranking of small Community and NTNC public water systems for the financial and managerial criteria includes the following factors: 1) monitoring violations during the previous 2 years, 2) presence of a properly certified operator, 3) type of system, and 4) loan repayment history. The point system is as follows:

- 10 points for each monitoring violation of the SDWA for the previous two years. No distinction is made between systems on the Significant Non-Compliance (SNC) list and those that are not on the SNC list.
- 20 points are added to a system that does not have a certified operator of the required level.
- 0 points for systems that purchase water or that are ground water systems, 8 points for ground water systems under direct influence of surface water (GWUDI), and 5 points for surface water systems.
- 20 points are assigned to systems that are determined by ANRC to be financially weak, and 40 points are assigned to systems that are determined to be financially very weak. Points are determined based on the system's history of loan repayment problems.

The points for each category are totaled and systems scoring the highest number of points receive assistance first.

Element B

The factors that encourage or impair capacity development in the State of Arkansas. These factors include the "institutional, regulatory, financial, tax, or legal factors" that exist at the Federal, State, or Local level that encourage or impair capacity development.

The following factors that encourage or impair capacity development were identified by the ADH and by stakeholders through the stakeholder meeting process.

Factors that encourage capacity

- Act 96 of 1913 gives the Arkansas Department of Health (ADH) the broad legal authority "to make all necessary and reasonable rules and regulations of a general nature for the protection of the public health." The ADH Engineering Section has used this broad authority to implement the State's "Rules and Regulations Pertaining to Public Water Systems", which contains specific requirements for all public water systems. The ADH "Rules and Regulations Pertaining to Public Water Systems" were last revised April 1, 2010 which include requirements for technical, financial, and managerial capacity and other requirements of the SDWA and the State.

- The requirement for water systems to have licensed operators is mandated by Act 333 of 1957, as amended, generally referred to as the "Water Operator Licensing Law". The present "Rules and Regulations Pertaining to Water Operator Licensing", were promulgated under the Law and duly adopted by the Board of Health in 2003. The Law and its Regulations

establish the Water Operator Licensing Program. The 1997 Regulations resulted in Arkansas switching to the Association of Boards of Certification (ABC) exam system and classification for water operators. In the ABC system operators are required to take either 1 or 2 exams for certification depending on their actual job duties in addition to the work experience requirement. If an operator works in treatment only, the operator is required to pass a treatment examination. If the operator works in distribution only, the operator is required to a pass a distribution exam. If the operator works in treatment and distribution, the operator is required to pass both exams. The license grades include Very Small System (VSS) and grades I, II, III, and IV. Grades I through IV have separate licenses for distribution and treatment. The exams are all multiple-choice questions, closed book, and have from 100 to 125 questions. Exams are standardized and are computer graded. In both the old and new licensing system, operators are required to receive 24 hours of training every two years in order to renew their license. The ADH Training and Certification Officer must approve the training.

- The Arkansas Drinking Water Advisory and Operator Licensing Committee advises the Engineering Section and the Arkansas Board of Health on the rules and regulations affecting licensing, setting fees, establishing education standards, and suspends licenses when necessary. The committee consists of 7 individuals including 4 persons from public water systems, 1 consulting engineer, 1 faculty member of the University of Arkansas who is an engineer with drinking water expertise, and an Executive Secretary who is the Director of the Engineering Section of the ADH. Members serve 6-year terms, except the Executive Secretary, which is a permanent position. The committee meets on a quarterly basis to discuss and make decisions on items affecting the licensing program.

- Another factor encouraging capacity in Arkansas, identified by stakeholders, is a good network or community of informed providers. Since Arkansas is a small state with a population of about 2.5 million, people in the waterworks industry who have been around the business for a while tend to know each other. This network is further enhanced by several organizations filling their respective niches in the waterworks community such as the Arkansas Water Works and Water Environment Association (AWW&WEA) and its regional districts, Water Wastewater Advisory Committee (WWAC), Arkansas Drinking Water Advisory and Operator Licensing Committee, Arkansas Water and Wastewater Managers Association, and Arkansas Rural Water Association (ARWA).

- The Arkansas Water Works and Water Environment Association is an organization that serves the water and wastewater operators in the State of Arkansas. It consists of 9 districts located in the various geographic areas of the state. Individual member dues fund the districts. Each district has a monthly meeting and provides training and networking opportunities for water and wastewater operators working in that general area. The meetings are informal and provide opportunities for water operators to network with other neighboring systems. The relationships between neighboring systems that are established at these meetings have resulted in sharing of equipment such as backhoes and more experienced operators providing technical assistance to their less experienced counterparts in the profession. Operators also receive training hours for attending meetings to be applied toward licensing renewal.

The Arkansas Department of Health district staff attend most of these meetings to provide a forum for open communication between the ADH district staff and the water systems in an informal setting. The ADH technical support staff working in programs including the Lead/Copper Program, Consumer Confidence Reports and Cross-Connection Control Program have provided training at the district meetings recently. The AWW&WEA also sponsors an annual meeting held each Spring. The meeting provides training opportunities for operators, managers, and consultants. Some of the contributing organizations at the meeting include the ADH, Arkansas Department of Environmental Quality (ADEQ), AWW&WEA, Southwest Section of AWWA, University of Arkansas, Arkansas Environmental Academy, and Arkansas State University. The conference provides opportunities for water operators, managers, engineers, state agencies, and vendors to mingle in classroom, exhibition, social, and informal situations. Operators also receive training hours for licensing renewal.

- The Arkansas Rural Water Association (ARWA) is very active in providing training opportunities for water operators. ARWA holds several two to three day training schools for water operators at various locations around the state every year. ARWA also has 3 circuit riders and 5 other specially trained technical staff members to provide hands on assistance to water systems. In the summer, ARWA holds an Annual Conference in Hot Springs. This conference is well attended with hundreds of participants each year. The conference is geared very closely to the training needs of water operators and offers classes that are specific for the various types of licenses operators are seeking. Other organizations have also been involved in this conference, including the ADH and ANRC. This conference also provides opportunities for ARWA, vendors, water system staff, and state staff to share information. Operators receive training hours toward licensing at the conference and short schools. Also, ARWA has built the $1 million ARWA Dale Bumpers Training Facility in Lonoke for providing classroom and hands-on training of water operators.

- The Community Resource Group (CRG) provides water management and water board members a variety of resources to meet the needs of water systems. Among the services provided by CRG include on-site technical assistance including locating, qualifying and applying for development financing. Also operation and management services on rate structures; billing and accounting systems; budgeting and record keeping; preventive maintenance; long-term planning; and overall system operation are provided. CRG provides education and training for governing boards and staff on duties and responsibilities of system operation and maintenance. The *Community Water Bulletin: A Resource for Small System Decision-Makers* is a newsletter distributed to board members to help them better manage their systems. CRG also has several publications on specific topics related to small system management and finance. These manuals are designed for use by public utility board members in carrying out their responsibilities for system management and governance. The CRG Community Load Fund is a $3 million revolving loan fund operated by CRG to assist small systems needing $100,000 or less for improvements. CRG also provides utility management and operational services in cases where a crisis has threatened continued service or where no other feasible alternative is available.

- The Arkansas Water & Wastewater Advisory Committee (WWAC) is a very important organization in the State for coordinating efforts in publicly funded water and sewer projects. The members of the WWAC represent the primary public funding agencies in the State and the ADH. Members include, ANRC, ADEQ, Arkansas Department of Economic Development (ADED), Rural Utilities Services (RUS), Community Resource Group (CRG), and ADH. The WWAC meets on a monthly basis to discuss water and sewer projects to be funded. Any projects to receive public funding from these groups must submit a preliminary report to and obtain approval from the WWAC. Projects are submitted to the WWAC in the form of a preliminary engineering report. The ADH District Engineers, Engineer Supervisors, and Chief Engineer prior to the monthly WWAC meeting review these projects from a technical standpoint. The technical review is based on the ADH *Rules and Regulations Pertaining to Public Water Systems*, the *Recommended Standards for Waterworks* by the Great Lakes – Upper Mississippi River Board of State Sanitary Engineers (Ten States Standards), engineering design criteria, and Engineering Section policies. All comments from the ADH must be addressed prior to the project receiving funding. The WWAC review acts as one control point to help ensure that projects receiving public funds meet technical, financial, and managerial capacity objectives before receiving funding. The WWAC acts as a "clearinghouse" for public funding and avoids duplication in effort particularly in the areas of project submission and project review. It also facilitates communication between the various funding agencies to make better use of public resources.

- The Arkansas Environmental Academy (AEA), a part of Southern Arkansas University Tech in Camden, Arkansas, provides operator training and technical assistance in water, cross connection control, wastewater and solid waste. The training is provided on-campus and off-campus in local communities throughout the state. On-campus training is provided utilizing their recently expanded training center. It consists of 3 classrooms equipped with much of the latest education delivery technologies, including two-way television and a fully equipped water and wastewater training laboratory. In a separate facility on campus AEA has a cross-connection control and pump maintenance training facility with a classroom, 10 station wet lab for hands-on device training and a pump maintenance hands-on classroom. AEA provides most of its off-campus training utilizing the facilities of sister junior colleges or other training facilities. AEA presently has a Director, 2 full time instructors and a large adjunct instructor staff to provide the training throughout the state. AEA has at least 12 adjunct instructors actively teaching water classes.

- The ADH project plan review process is another control point to help ensure that all public water systems have technical capacity. The ADH *Rules and Regulations Pertaining to Public Water Systems* Section XX requires systems that are making any major improvements to their existing facilities prepare and submit a preliminary report. The ADH *Rules and Regulations Pertaining to Public Water Systems*, *Recommended Standards for Waterworks*, engineering design criteria, and Engineering Section policies govern project design. An inspection by ADH staff of all proposed surface water and all ground water source locations is conducted as part of the review process.

Section XXI requires that engineering plans and specifications be submitted to ADH for approval prior to constructing or entering into a contract to construct a water supply system, source of supply, water purification plant and/or distribution system, or any alterations thereto. These final plans are reviewed in much greater detail than preliminary reports. Again the *ADH Rules and Regulations Pertaining to Public Water Systems*, *Recommended Standards for Waterworks*, engineering design criteria, and ADH policies (written and unwritten) govern project design. The Chief Engineer meets with the Consulting Engineers Counsel periodically to discuss issues relating to the plan review process in order to help the system function more effectively.

- The ADH *Rules and Regulations Pertaining to Public Water Systems* Section VII.H requires each Community and NTNC PWS to have a written long-range plan. The long-range plan is to address, at minimum, projected needs for source, treatment, storage and distribution for a planning period of at least ten years, and to demonstrate the system's technical, financial, and managerial capacity to comply with the requirements of the SDWA. A copy of the ADH *Guidelines for Long-Range Plans* is included in Appendix A.

- The Arkansas Natural Resources Commission (ANRC) is the major State funding agency for drinking water projects. In 1997, the state legislature passed a $300 million general obligation bond to help fund drinking water and sewer projects with a $60 million per biennium limit. The voters in the November 1998 election approved the bond issue. ANRC also administers the DWSRF loan program in Arkansas under the oversight of the ADH Engineering Section. The bond money and the DWSRF are the main sources of state money available for lending to public water systems in Arkansas by ANRC. ANRC also administers the State Water Plan that determines service areas for water systems in Arkansas. Additionally, ANRC administers other technical programs related to water resources in Arkansas, including nonpoint source pollution prevention, and designates critical groundwater areas if an aquifer is depleting more than 1 foot per year under the Groundwater Protection and Management Act of 1991. The law allows ASWWC to deny future well permits and restrict water pumping as a last resort in an emergency, but to date this procedure has not been used. The Sparta Aquifer, which underlies eleven counties, is designated a critical groundwater area. The aquifer serves about 320,000 Arkansans for drinking water or about one eighth of the state's population. The Alluvial aquifer in the Grand Prairie area is also a critical groundwater area. Additionally, riparian water rights disputes are arbitrated by ANRC to avoid going to court.

- The Arkansas Water Well Construction Commission is a "subsidiary" of ANRC reporting directly to the Executive Director of ANRC. They license water well drillers in 5 different fields of expertise and investigate customer complaints.

- The Governor's Water Resource Task Force was established to look at water quality and quantity issues related to protecting Arkansas' Water Resources. The Lieutenant Governor is heading the task force with the assistance of the Director of ANRC. The group takes a multi-agency look at water resource issues in Arkansas.

- Other factors discussed by stakeholders were that Arkansas is a water rich state, and the state capital is easily accessible. The fact that EPA has delegated SDWA authority to the state was considered an enhancement as well as the $0.30 per meter per month fee, which helps the ADH maintain primacy by providing funding to the Engineering Section and paying for sampling and laboratory analyses required by SDWA.

- The ADH has an informal Capacity Development team consisting of but not limited to a Engineer Supervisor serving as Capacity Development Manager; a Health Program Specialist serving as Training and Certification Officer; an Environmental Health Specialist serving as Capacity Development Coordinator. This team discusses issues relating to Capacity Development on an unscheduled basis. The feedback from these team members, stakeholders and other ADH staff will be used to consider topics for future stakeholder meetings, priority list criteria, operator and board member training and other issues.

Factors that impair capacity

- A lack of public education and awareness of water costs, the need to adequately pay operators, and the regulations faced by water systems are major factors impairing capacity development according to stakeholders. Water is generally the least expensive household commodity. Many people have the attitude that water should be free and do not have an understanding of what is involved in operating and managing a public water system. This same public perception is a factor in low salaries for many water system operators in small communities. In some communities, operation of the water plant is placed on the same level with garbage collection, animal control and street repairs, and employees are compensated accordingly. The combination of low salaries and public perception makes it difficult for many small utilities to attract qualified operators. In some small systems, the operator is running the system because no one else could be found who would assume the responsibility.

- The lack of mandatory board member training is a major factor that impairs capacity. Key decision makers that control the money of water systems, including water boards, city councils, and mayors, are often not trained in water works management and are not aware of what is involved in operating a water system. Water board members lack management training, and there is not a lot of continuity or knowledge among current board members. Many operators have expressed frustration with boards and city councils who tie the operators' hands by not making funds available for needed improvements.

- The stakeholders identified the low passing rates on water operator exams as a negative factor affecting capacity. The need for more assessable training and exams more suited to the study materials was expressed as one of the highest priorities.

- Another major impairment identified by stakeholders is not treating water systems as a business. A number of systems are reluctant to raise rates, and smaller systems also carry a higher debt load. The reluctance of water systems to raise rates to cover the increasing costs associated with operating a water system has been seen in communities where a mayor and city council do not want to raise rates because it is not popular to the electorate, as low water rates may be used politically to show that an administration is doing a good job.

- An impairment identified by stakeholders was that in some cases funding is too easy for small systems to obtain to fix problems, so the systems might not feel the need to properly operate and maintain their facilities.

- Politics, at the local, state, and national levels also contribute to impairing capacity. Some stakeholders felt that smaller water companies are more susceptible to politics than larger ones. Many small systems value autonomy and do not consider regionalization as an option.

- Another impairment discussed was the relationship between ADH and communities. Some stakeholders felt that communities calling ADH with a problem often do not get the help they need. This may be partially due to the difficulty for ADH to maintain adequate properly trained staff to make timely visits to systems and meet their technical needs. Travel time to outlying areas of the state can also be a contributing factor.

- Another factor impairing capacity is the tendency in certain areas for systems purchasing water to want to break off from the parent system and secure their own independent source of water. This "urge to diverge" is often a result of disputes over water rates and the parent system setting quantity limits or limiting the number of new taps for a purchase system thereby limiting growth. Additionally, recent years have seen power struggles between neighboring water systems to serve new areas and disputes over State Water Plan Compliance.

- An additional factor impairing capacity is the use of water system funds in cities to fund other city projects, such as street improvements, parks, etc., thereby reducing revenues available to water systems for necessary maintenance and improvements.

- The lack of funding for source water protection was another impairment discussed by stakeholders.

- The inability to follow-up with hands-on technical assistance due to the unavailability of funds from ADH after the technical assistance contractors do a capacity assessment was also discussed as an impairment to capacity. See Element C below for information on the ADH technical assistance contracts.

Element C

The use of ADH or other state authorities and other means to:

a. Assist PWSs in complying with the National Primary Drinking Water Regulations.

b. Enhance technical, managerial and financial capacity by encouraging the development of partnerships between Public Water Systems (PWSs).

c. Assist PWSs in the training and certification of their operators.

a. Assist PWSs in complying with the National Primary Drinking Water Regulations.

The ADH is using the 2% set-aside from the DWSRF for small systems technical assistance. This assistance is provided in the form of two technical assistance contracts. The ADH currently has a *Small Systems (<10,000 population) Technical Assistance Contract for Technical and Operational Capacity Development* with ARWA. Also, the ADH has a *Small Systems Technical Assistance Contract for Financial and Managerial Capacity Development* with ARWA. The ARWA has many years of experience providing small systems technical assistance to operators through their circuit riders and other programs. A priority list is developed for each contract as described in Element A. Some systems have appeared on both priority lists and received assistance from both of the technical assistance providers. The Engineering Sections provides the contractor with a list of systems and their associated assistance needs. Each contractor conducts an on-site assessment of the water systems on the priority list established by ADH. Flexibility is allowed in the order of assessments in order to minimize travel time and maximize assistance. After assessments are conducted, the contractors prepare a strategy to address areas in which systems need improvement in their technical, financial and managerial capacity. The contractors provide direct assistance to the water systems and follow up on the progress systems are making toward reaching milestones set in the strategies. Follow up is provided by the contractors making site visits and through telephone calls. An Access database was developed by the contractor to input data collected during assessments, strategies, and verifications. The current contracts focus on having the contractors providing technical assistance to the water systems in directly addressing the areas identified as needing improvement as compared to earlier contracts which focused on the system assessments and strategy.

The contracts to allow contractors to participate in Comprehensive Performance Evaluations (CPEs) conducted by ADH staff. The goal of including the contractors in the CPE process is multi-faceted. By having other organizations involved in the CPE process, someone other than the regulators is identifying to the systems the areas where improvement is needed. Also, it is hoped that a benefit will be received by both ADH staff and the contractors so that each party will gain a better understanding of what each is looking for and learn from a broader spectrum of experiences.

The ADH also plans to use a portion of the 15% set-aside from the DWSRF Local Assistance and other State Programs for Capacity Development assistance to identify water operator training needs, develop training courses, and conduct training sessions. The operator needs were to be identified, in part, using the results from the small system technical assistance set-aside contracts. There is currently a lack of available time and manpower to address these activities, as the State's resources have been consumed in addressing other new SDWA regulatory requirements, leaving no time to address these activities.

Capacity Development is further addressed under the State Public Water System Supervision Program (SPWSSP). The 10% set-aside for State Program Management will be used in implementing activities under the ADH's routine SPWSSP. These activities include such items as sanitary surveys, project plan reviews, technical assistance, and operator training.

The following is a summary of the organizational structure of the Engineering Section. The Engineering Section has two major groups: field surveillance staff and technical support. The field surveillance staff, or districts, are generalists that function as the primary contacts with the Community and NTNC PWSs in the 9 ADH Engineering Districts. Among the functions provided by the district staff are plan review, sanitary surveys, general technical assistance, proctoring and grading of water operator exams, and complaint investigations. The technical support staff tends to work in special programs that require a very focused expertise created by the various EPA rules such as Surface Water Treatment Rule, Lead & Copper, Capacity Development, and DWSRF. This organizational structure provides a somewhat personalized contact with the water systems while providing an economy of scale to implement the various rules within the SDWA.

As noted previously, the ADH requires plan review and approval for all major modifications to public water systems prior to construction of any PWS infrastructure. This includes system source, treatment, distribution, and storage. The ADH uses its project plan review process as one means of assisting and guiding water systems toward system improvements that ensure compliance with the SDWA and NPDWR and improved technical capacity. Through the plan review process, the ADH ensures that any proposed modifications are compatible with existing and upcoming regulations, that good engineering practices are employed, and that the best interest of the water system is served. It is through the review and analysis of proposed projects that the Department has its first opportunity to impact each of the three components of capacity development, both for newly found, systems not going through plan review process and existing systems. Newly found systems are defined as and will be reviewed according to New System Criteria. Capacity development can be addressed in the following ways:

Technical Capacity

All projects involving source development, treatment, or major distribution modifications are required by ADH regulations to submit a preliminary engineering report for the proposed work, as are proposals for new systems. Major modifications to source development, treatment, or distribution of existing systems also require the engineering report. These reports are to be submitted and reviewed before any construction work commences.

The preliminary engineering reports must contain data and information sufficient for the complete understanding of the proposed work. The preliminary reports typically address design, cost, financing, operation, and management of facilities. It is during this process that the ADH first begins a review of system long range planning efforts. District staff review those reports to assess, among other things, the feasibility of each project, alternatives to the proposed project, whether the proposal will address existing or anticipated violations, and viability of the project. At this point in the review process, District staff may make recommendations to and work with state and federal funding agencies to promote consolidation, interconnections, or combined operations to improve the feasibility or viability of a project, particularly for small systems. The plan review process also allows ADH Engineers the opportunity to encourage, where appropriate, efforts toward

consolidation, interconnection, or combined operations with nearby PWSs in the form of correspondence, phone discussions, and on-site assistance.

For both new and existing systems, the ADH regulations require that the design drawings and specifications for any water system improvements be submitted to and approved by the ADH prior to any construction activity. Upon receipt of the construction drawings and specifications, whether or not a preliminary engineering report was submitted, the ADH reviews the proposed project's compatibility with existing and upcoming regulations, for compliance with established design guidelines (e.g.; Ten States Standards, AWWA), good engineering practices, and to see that the best interests of the water system and its customers are served. In addition to regulatory compliance, the review process also insures that the project will actually accomplish the PWS's project goal without detriment to the remainder of the treatment, distribution, or storage systems and that appropriate materials and methods of construction are employed. If substantial comments are generated in the plan review process, then ADH Engineers can communicate directly with the PWS, or its consultant if so, authorized and provide on-site assistance as needed.

Further, the ADH Engineers, in effect, function as a 'surrogate engineer" for the smaller PWSs that cannot afford to hire a staff engineer.

Managerial Capacity

The plan review process will consider any limitations of a project and bring these to the attention of PWS managers and operators for further planning efforts. Most small systems do not have the in-house resources to evaluate the projects in light of proposed federal and state regulations and the agency plan review process can be used as a part of the system's management planning process. The licensing status of the operator or manager for a project under review can also be a part of the plan review process. Should a project be operated by an unlicensed or inappropriately licensed individual, a review comment on the matter can be raised with the water utility, or with the funding agency if state or federal funds are being used in financing. System officials can then be referred to the ADH's Operator Certification Program for further assistance on licensing. The plan review process will also ensure that water systems have established a board of directors and bylaws.

In the project approval letter from ADH to the PWS, the PWS will be encouraged to update, as needed, its long range planning efforts to reflect changes needed as a result of system growth, or SDWA regulatory needs, or other activity. Onsite assistance can be provided to the PWS in these instances as requested.

Financial Capacity

By ensuring that projects are designed properly, that suitable equipment is used, and that proper construction techniques are employed, the plan review process can actually save a PWS dollars in the long run. As part of the review of preliminary engineering reports, Engineers will review the cost of all alternatives and their estimated operational costs, and comment, if necessary, on the accuracy and feasibility of those costs. A PWS's governing body (e.g.; Board of Directors, City Council, etc.) is always encouraged to evaluate current and future allocation of resources needed to comply with the SDWA regulations and other system needs.

The Comprehensive Performance Evaluation (CPE) is a tool used by ADH staff to provide assistance to surface water systems. Approximately two full-time equivalents (FTEs) are dedicated to this program. There is one full-time position, the CPE engineer, and the other FTE is made up from multiple staff working on an as-needed basis in the program. The ADH has a goal to conduct one CPE about every 2 to 3 months. The CPE program provides an in-depth look at the design, operation, and administration of surface water systems. During the CPE, performance-limiting factors are identified and prioritized. The CPEs are conducted with a typical team of 6 to 9 persons. The CPE process includes a pre CPE site visit by one or two staff and a week of fieldwork by the full CPE team. Following the CPE a final report listing the findings is prepared and submitted to the water system. Recent CPEs have been targeted at systems with the greatest need for assistance determined by number of points on the priority list. The ADH is participating with EPA and other states in an Area Wide Optimization Program (AWOP). The goal of the AWOP program is optimized performance at all surface water treatment plants. As a part of the AWOP, the ADH is participating in the Performance Based Training (PBT) program. The PBT consists of a long-term training project with a group of water systems with the goal of teaching problem solving skills to water plant operators and assisting the water plant operators in addressing performance limiting factors at their water treatment plant through the application of the skills learned in meetings of the PBT group.

After performing multiple CPEs, the ADH has determined some factors commonly occur. For example, lack of or incorrect calibration of turbidimeters was identified as a common problem. The ADH conducted a series of topic specific training sessions on the calibration of turbidimeters. Since 1999, summer interns have trained in checking the calibration of turbidimeters and sent out to various treatment plants to check the calibration of turbidimeters and other monitoring equipment. District staff has been tasked with follow up at systems where the equipment are noted as being significantly out of calibration. The ADH may conduct other topic specific training sessions.

Sanitary surveys are conducted for all PWSs by district staff on a biannual basis for surface water systems (including springs and GWUDI), and a triennial basis for groundwater and purchase systems. Items that are addressed in sanitary surveys include factors related to source, treatment, pumping, storage, distribution, compliance, and management. Deficiencies found in sanitary surveys are provided to the water systems in writing for correction and may be tied to enforcement actions for SDWA violations. Technical, financial, and managerial capacity questions are included in the sanitary surveys.

The Department believes that public education on the value of drinking water resources, and the complexities of the competing interests that must be addressed to provide safe drinking water, are a necessary component of any program that will provide for the long term improvement of water system capacity. The drinking water knowledge of the public being served by a water system is a critical factor in the decisions made by the governing body of that system. Those decisions will have a direct impact on the ability of the water system to comply with the Safe Drinking Water Act regulations.

With this public education goal in mind, the Engineering Section is implementing, or proposes to implement, a number of projects to educate the public, elected officials, and water system employees on these issues. Some of the projects being implemented or currently proposed include:

ADH provides educational materials to water systems, the public, and interested parties in the form of EPA rule summaries, state regulations, applications, and waterworks training topics. The Engineering Section also maintains a website providing information about the Section, waterworks topics, and links to other related websites.

The ADH also publishes and distributes a quarterly newsletter to advise PWSs of upcoming regulations, provides a summary of regulations and other topics of interest on both a state and national basis. Through the newsletter and hopefully in the future through the website, the ADH will be able to keep other interested parties informed of developments in the Capacity Development Program besides only the people attending the stakeholder meetings and persons on the stakeholder list. The ADH currently provides one copy of the newsletter to each community public water system, each water operator, each mayor of all Arkansas cities and towns, and other interested parties.

On occasion, training programs to educate teachers in the area of environmental education in general, or water resource issues in particular, are available from public interest organizations or private vendors. When such programs are available, it is the Department's intent to present, sponsor, or fund attendance at such programs utilizing funds from the Capacity Development portion of the Local Assistance set-aside from the Drinking Water State Revolving Loan Fund.

The Engineering Section also provides one-on-one technical assistance to water systems. The district staff provides general technical assistance to the systems in the regions in which they work. This technical assistance could be in many forms, including explaining rules and regulations, assisting water operators with exam questions, or performing jar tests and chemical feeder calibrations for small surface water treatment plants. Other staff also provide technical assistance including proper methods of backflow prevention, assistance with lead/copper corrosion control plans, assistance with preparing Consumer Confidence Reports (CCRs), operations to comply with DBP and SWTR regulations and assistance with plan submittals for small systems declared groundwater under the direct influence of surface water (GWUDI).

The ADH Engineering Section has a formal enforcement plan, the *Compliance and Enforcement Plan for the Public Water System Supervision Program.* The ADH *Rules and Regulations Pertaining to Public Water Systems* Section XXIV gives the ADH regulatory authority for administrative penalties for systems that are out of compliance with ADH regulations. The enforcement plan has a set procedure for escalating enforcement actions and penalties. Escalating enforcement actions include a Warning Notice of Violation, Notice of Violation Potential Administrative Order, Administrative Order, and Administrative Penalty. After an Administrative Penalty is assessed, the water system's representative must appear before a three-member panel of the Board of Health or enter into a Consent Decree. The panel makes recommendations to the full Board of Health for enforcement actions including monetary fines for noncompliant water systems.

The requirement of systems to have a written long-range plan is to make systems consider present and future needs over the next 10 years in order to be proactive instead of reactive so as to make the best use of available resources. The long-range plan should consider both present and future regulations. Although not a formal business plan the long-range plan is a requirement to help systems focus on future needs. The requirements of systems to have emergency plans is to make sure systems consider and plan for operations during emergency conditions and plan for alternatives if operations are interrupted. Both the Section staff and the technical assistance contractors provide assistance and guidance to water systems in developing these plans.

The Department has historically assisted public water systems in Arkansas in their compliance efforts by providing analytical services to the water systems for all required analyses. By providing for the collection and analyses of chemical samples, and the analyses of coliform samples, the Department has improved the capacity of water systems to comply with the Safe Drinking Water Act regulations by eliminating from the water operators duties, a series of extremely complex and sensitive activities. Simultaneously, the Department improves quality assurance of the monitoring program by utilizing state employed, properly trained samplers. The Department has provided these services through a combination of state general revenue funds, water system service fees.

b. Enhance technical, managerial and financial capacity by encouraging the development of partnerships between Public Water Systems (PWSs).

The ADH is also using the priority criteria of the DWSRF to encourage regionalization. Priority points are assigned to systems for consolidation or interconnection with an existing system. Anywhere from 10 to 50 points are assigned based on the number of service connections of a system that proposes to consolidate with an existing system which is fully compliant with SDWA water quality regulations. The smaller the system, the greater the number of points assigned depending on the number of service connections. In cases where multiple systems will consolidate, point assignments will be based upon the number of service connections of the smallest system. Extra points for additional consolidating systems under the same project will be assigned at a rate of ten percent (10%) of the original rate. Points will be awarded only for systems which propose an interconnection and water purchase agreement with another water system as a means of resolving a water quantity or quality problem for which points are awarded. Anywhere from 5 to 25 points are assigned depending on the number of service connections. The smaller the system, the greater the number of points assigned for interconnection. In cases

where multiple systems will interconnect, point assignments will be based upon the number of service connections of the smallest system. Extra points for additional systems under the same project will be assigned at a rate of ten percent (10%) of the original rate.

c. Assist PWSs in the training and certification of their operators.

The ADH in years past has conducted or coordinated regular two to three day short schools providing training for water operators. The Section's Licensing Training Coordinator is responsible for organizing and coordinating Engineering Section operator training programs around the state. All staff in the Engineering Section are expected to be involved in the operator training program. ADH solicited input at a stakeholder meeting on June 22, 2000 to determine specific needs for operator training from stakeholders such as types and frequency of training to be offered. At this meeting, stakeholders felt that a lot of training was available but that the training may be less accessible in certain areas of the state. Also, the issue of adequate notification of training events was discussed. One suggestion was for the ADH to partner with the vendor that provides the training calendar in order to provide a more complete training schedule. Another suggestion was to hold training in more locations around the state. The Engineering Section has changed to a multiple choice based exam system from an essay based exam system to meet the SDWA SRF Operator Certification Program Guidelines. The new system has created an even greater need for operator certification training. The ADH's previous training efforts were aimed at assisting operators in certifying in the essay-based system. The current system required revamping the old training program to meet the needs of the new system. Also, training aimed at treatment operation separately from training aimed at distribution system operation is required. Both training programs needed to be longer in length to cover the wide array of information tested by the current exam system. By offering a greater number of training programs, utilizing the modified training programs, a greater number of operators should be better prepared to properly operate their water system and to successfully sit for the license exam.

The Arkansas Rural Water Association (ARWA) is very active in providing training opportunities for water operators. ARWA holds several two to three day training schools for water operators at various locations around the state every year. ARWA also has 3 circuit riders and 5 other specialty technical staff members to provide hands on assistance to water systems. ARWA also holds an annual meeting in Hot Springs, where operators receive training hours toward licensing at the conference and short schools. The Engineering Section currently contracts with ARWA to provide required water operator license training courses.

The Arkansas Environmental Academy (AEA) in Camden is a part of Southern Arkansas University and provides on-campus training classes for water operators. The Environmental Academy also provides operator training classes in other locations around the state through adjunct faculty. The Engineering Section currently contracts with AEA to provide required water operator license training courses.

The Arkansas Water Works and Water Environment Association consists of 9 districts located in the various geographic areas of the state. Each district has a monthly meeting and provides training and networking opportunities for water and wastewater operators working in that general area. The meetings are informal and provide opportunities for water operators to network with

other neighboring systems. Operators also receive training hours for attending meetings to be applied toward licensing renewal. The Arkansas Department of Health district staff attends most of these meetings to provide a forum for open communication between the ADH district staff and the water systems in an informal setting. The AWW&WEA also sponsor an annual meeting held in the Spring at the Hot Springs Convention Center. This year about 2,600 persons attended the annual conference. The meeting provides training opportunities for operators, managers and consultants. The conference provides opportunities for water operators, managers, engineers, state agencies and vendors to mingle in a classroom, social, and informal setting. Operators also receive training hours for licensing renewal.

d. Assist PWSs in source protection activities.

The ADH recognizes that protection of drinking water sources is a critical activity that must be carried out on the local level with state support if it is to be successful. The ADH plans to continue to assist individual PWSs in their efforts. The ADH's intent is to provide technical assistance to PWSs to enable them to better understand and characterize their source water watersheds, protect their water sources, and establish local source water protection programs to insure the continued protection of sources.

Under EPA guidance, a source water protection program consists of five steps as a minimum. The ADH generally concurs with the need for the implementation of these steps. The steps with example activities are:

Step 1. Establish a Team

Formation of a local team is needed to ensure proper coordination of source water protection activities. The formation of this team is on a voluntary basis and is contingent upon local interests and participation. At a minimum, the team should be comprised of the system operator/manager working with staff from the ADH. If a Public Water Supply System wishes, the team can be expanded to include participants such as local government officials, members of the news media, representatives of a fire department, representatives of the law enforcement, members of the general population, and representatives of other concerned groups.

Step 2. Delineate an Area to be Assessed.

In conjunction with local water utility officials, the State will assist in the development of Phase II source water protection area assessments (more accurate, site-specific mapping than in Phase I) and customized evaluations for a more accurate portrayal of vulnerability.

Step 3. Contaminant Source Inventory.

In conjunction with local water utility officials, the State will assist in the development of high priority source protection measures and policies for Public Water Systems (PWSs) receiving a "high" vulnerability rating under the Phase I source water assessments.

In conjunction with local water utility officials, the State will assist in the updating of watershed evaluations of public drinking water systems for vulnerability to contamination.

In conjunction with local water utility officials, the State will provide Geographical Information System (GIS) maps and evaluation results to PWS's as a basis for development of local Source Water Protection Plans.

ADH will conduct technical review of state permitting actions including, but not limited to NPDES permits, Land Application permits, Landfill permits, proposed highway construction projects, oil and gas well sites, and stream alterations. These projects are analyzed for potential adverse effects on PWSs. The PWSs are advised if potential adverse effects are anticipated, and stakeholder meetings are held where warranted.

Step 4. Develop Management Controls.

The State will encourage local water utility officials to participate in grant-seekers workshops for watershed groups.

ADH will work with the Arkansas Highway Department to design "Source Water Protection Area" signs for Assessment Areas.

ADH will sponsor community education programs for local groups on the importance of source water protection activities, as requested by local water utility officials, citizens, or civic groups, and to promote active interaction with local source water protection efforts.

The local Lead person for the PWS's Source Water Protection Program has the responsibility to notify the appropriate members of the local source water protection team in the event of an identified threat to the quality of the system's source of drinking water. The State is to be notified by the local Lead person to address any source water protection issues beyond the authority of the Local Team members.

Step 5. Contingency Planning.

ADH will assist local water utility officials in developing contingency planning for emergencies and impacts to future water supply.

Element D

How ADH will establish a baseline and measure improvements in the capacity of PWSs under their jurisdiction. This programmatic element includes the tools that ADH will use to produce and submit a report to Arkansas' Governor on the efficacy of the capacity development strategy and progress made toward improving the technical, managerial, and financial capacity of PWSs.

The State will establish a baseline by looking at the present levels of compliance by water systems. Improvement in system capacity can be measured by comparing future compliance levels with current levels for a particular regulation or set of regulations. Overall compliance levels are not necessarily a good measurement of improvement, as new regulations are continually promulgated and may result in additional noncompliance.

The strategies that are proposed under the Small Systems Technical Assistance Contracts require the setting of milestones. Telephone verifications and on-site verifications are part of the contracts to measure improvement by checking compliance with milestones. Assessments, strategies, and verifications are entered into an Access database to provide baseline information in order to be able to measure improvement. The State will also review a list of those systems that have been given technical assistance as a result of being placed on the priority list due to violations and other factors in order to determine their subsequent compliance history.

New systems that have undergone the full capacity review will be tracked and their compliance history compared with previously approved systems that did not have a complete capacity review as part of their approval process. Those systems that were required to have capacity reviews are expected to show a better compliance history than those systems that were built prior to the capacity requirements. Other methods of measuring improvement identified by stakeholders to be considered include an increase in the attendance at AWW&WEA district meetings, number of systems helped through technical assistance contractors, increase in number of systems having a long-range plan, number of systems receiving funding for improvements. Additional items identified by stakeholders include number of sanitary surveys done on a routine basis, number of Source Water Protection Plans, and number of SRF projects and total amount of funding for water system improvements.

Other elements may be identified in the future to measure improvements as the capacity program progresses.

Element E

The procedures used by ADH to identify and involve stakeholders in the creation and implementation of the capacity development strategy.

The initial contacts list was formed by compiling addresses of members of various water industry related organizations and planning groups. A mailing list was developed from members of the Water Wastewater Advisory Committee (WWAC), Arkansas Water Works & Water Environment Association (AWW&WEA) District Directors and officers, Arkansas Water Licensing Committee members, and Arkansas Water & Wastewater Managers Association members. Other key groups that were added to the list include Arkansas Natural Resources Commission (ANRC), Arkansas Rural Water Association (ARWA), Community Resource Group (CRG), Arkansas Department of Economic Development (ADED), Rural Utilities Services (RUS), Arkansas Society of Professional Engineers (ASPE), Arkansas Consulting Engineers Council, Arkansas Environmental Academy, Arkansas Municipal League, League of Women Voters of Arkansas, League of Women Voters of Pulaski County, and County Judges Association of Arkansas. Hope Waterworks was invited due to personal contact and interest of the manager.

The ANRC was instrumental in providing addresses and contact persons with the various planning and development districts around the state. Among these organizations included in the contact list include Central Arkansas Planning & Development District, Northwest Arkansas Economic Development District, Southeast Arkansas Economic Development District, Northwest Arkansas Regional Planning Commission, Southwest Arkansas Economic Development District, West Central Arkansas Economic Development District, East Arkansas Planning & Development District, White River Planning & Development District, ARKHOMA Regional Planning Commission, Western Arkansas Planning & Development District, Arkansas-Texas Council of Governments, Mississippi-Arkansas-Tennessee Council of Government, Arkansas Development Finance Authority (ADFA), ECS Planning & Management, MetroPlan, and Benton County Rural Development Authority.

Letters of invitation were mailed to the contacts listed in Appendix C. Also, announcements were made at the AWW&WEA district meetings for the first stakeholder meeting. A newsletter article and mailing to the same list of organizations was done for the second stakeholder meeting.

A stakeholder meeting was conducted in Little Rock on April 19, 2000. The University of New Mexico Environmental Finance Center facilitated the meeting. Over 30 participants were present at the meeting representing public water systems, funding agencies, technical assistance providers, economic development districts, consulting engineers, political groups, and state regulators. Minutes of the meeting, an invitation letter, and a list of participants are given in Appendix D. The meeting consisted of an overview of the capacity development program and input sessions facilitated by EFC consisting of small group discussion. The small group discussions consisted of 4 small groups of about 7 to 10 people each. Individuals rotated within the groups in order to gain a cross-section of ideas.

Input session 1 looked at factors that encourage or impair capacity development of water systems. Among the factors discussed that were considered to encourage capacity development included the amount and diversity of technical assistance available to water systems in Arkansas, particularly by CRG and ARWA. Also, Arkansas has a high rate of partnering with professional organizations. All groups discussed the WWAC as an important enhancement. Factors considered to impair capacity included the lack of mandatory training for governing bodies of water systems and need for public education. Others identified politics on the local, state, and national level as impairments. Finally, the reluctance of some systems to raise water rates was considered a negative factor.

Input session 2 looked at current activities assisting public water systems. Next participants were asked to brainstorm and identify the top one or two most important programs for the state to implement. Public education and more and better training for operators as well as mandatory board member training were identified as top priorities.

Input session 3 concerned goals of the capacity development strategy. The highest-ranking goals of the stakeholder group included increasing public education and awareness, more and better training for water operators, mandatory board member training, and more money available to assist water systems. Another goal of the strategy would be an increase in water system compliance rates.

The minutes of the first stakeholder meeting and draft strategy were made available to participants by E-mail. Hard copies were mailed to participants that did not have E-mail. Additionally, hard copies were made available at the second meeting. Also, copies were sent to other interested parties by request that were unable to attend the first meeting.

A second stakeholder meeting was held in Little Rock on June 22, 2000. The second stakeholder meeting was held to comment on the draft capacity development strategy. 14 participants were present at the meeting. Minutes of the meeting, an invitation letter and a list of participants are given in Appendix E. The stakeholder input session followed a short presentation by EFC discussing requirements of a capacity development program. The items discussed in the meeting included a review of the ADH prioritization list of systems for technical assistance, assistance with compliance, partnering, and training and certification, measurements of success, and future stakeholder involvement.

Some of the comments received in regards to the ADH priority list for technical assistance included the following. The priority list is based on 2 years of data. By the time some systems received assistance their problems were already corrected. It was determined that the priority list needed to be more flexible. It also needs to be more proactive than reactive. Other states have the opportunity to get direct referrals to the list from the agency, technical assistance providers, and others.

The better use of the long-range plan as a tool to help systems attain technical, managerial, and financial capacity was discussed. Some ideas included for CRG to be able to assist systems with

preparing a long-range plan. Another idea was for ANRC to request changes and updates to the plan during their audit process.
A third issue discussed was assistance with partnering. The AWW&WEA district meetings provide opportunities for water system staff to build relationships and participate at the local level. An idea was to increase training programs by ADH staff that attends the meetings. It was suggested that possibly the capacity development program could provide a part-time staff for providing training at the district meetings.

In the first stakeholder meeting it was suggested that more and better operator training was needed. In the second meeting, stakeholders indicated that there are some areas in the state where training is not easily available but generally there are plenty of training opportunities. It was suggested that a potential problem was notification of training. One suggestion was for the ADH to partner with the vendor in the state that produces the training calendar in order to create a more complete calendar. Another concern was that some operators were unable to attend training due to a lack of a back up. It was suggested that a temporary operator or circuit rider be used to allow these operators to attend training.

Compliance data was identified as a means to measure improvement of the Capacity Development Program. Also compliance data for new systems could be tracked to determine if capacity development requirements helped. Other ideas presented for measuring the success of the program include the increase in the number of systems having a long-range plan, number of Source Water Protection Plans, number of SRF projects and total funding for improvements, and number of systems helped through technical assistance contractors.

Finally, further stakeholder involvement was discussed. Stakeholders indicated a desire to meet on a semi-annual basis to provide input and be involved with the evolution of the capacity development strategy.

E-mail will distribute minutes for the second stakeholder meeting to participants. Also, hard copies will be mailed to participants that do not have E-mail. Future plans are to post minutes of stakeholder meetings and the approved strategy on the Engineering Section website.

Future stakeholder meeting will be held at frequencies determined based on the interests of stakeholders and availability of ADH resources.

The ADH continues to focus on the following areas identified by stakeholders: 1) operator training, 2) modification of the capacity development contract priority list criteria to allow greater flexibility in the program, 3) better use of the long-range plan, 4) methods of measuring success of the program, 5) modification of sanitary surveys to include capacity development questions, 6) board member training and 7) public education. Other items will be incorporated over time as the ADH gains experience implementing the capacity development strategy.

Appendix A

Guidelines for Long-Range Plans

Guidelines for Long-Range Plans
Existing Public Water Systems

Under Section Vll.H of the Arkansas Rules and Regulations Pertaining to Public Water Systems, each public water system shall have a written Long Range Plan covering a planning period of at least ten years. This plan should be updated at least every 5 years. A Long-Range Plan shall address the following information at a minimum.

Items Pertaining to Technical Capacity:

1 A discussion of the water system's ability to consistently provide an ample quantity of safe drinking water to its customers, including such items as water use data, projected water use, regulatory compliance, etc.
2. A description of all major projects and expansions anticipated within the planning period.
3. A discussion and brief analysis of possible alternatives to the planned projects and expansions; including such items as interconnection with a neighboring system, purchased water arrangements, alternate ownership, and management arrangements.
4. Hydraulic analyses of the distribution system at all pertinent flows and storage tank levels anticipated within the planning period.
5. A discussion of source water adequacy, for both quality and quantity concerns, for the planning period.
6. A discussion of the adequacy of source water protection areas and measures to control potential contaminants, including any applicable legal authority to implement such measures.
7. A discussion of the current adequacy of water treatment processes and their projected performance and adequacy for the planning period.
8. A discussion of how the water system plans to address any waste disposal issues occurring due to water treatment, (e.g. sludge, backwash water, etc.).
9. Documentation that the water system currently has a sufficient number of properly licensed operators, and plans that the water system has for maintaining a sufficient number of properly licensed operators for the planning period.
10. A listing of any laboratory/water quality monitoring needs anticipated within the planning period.
11. A discussion of the water system's planning efforts to insure compliance with applicable state and federal regulations anticipated to be finalized within the planning period.
12. A statement of compliance with section XIV.F of the Rules and Regulations Pertaining to Public Water Systems regarding plumbing inspection and sewage disposal requirements, and a description of the system's legal authority to implement the requirements.
13. A statement of compliance with section Vll.E of the Rules and Regulations Pertaining to Public Water Systems regarding the establishment of a cross-connection control program, and a description of the system's legal authority to implement the requirements.
14. A discussion of deficiencies listed in the water system's sanitary survey that would result in major capital expenditures, and how those deficiencies will be addressed.
15. Other items as appropriate for documenting and/or maintaining the water system's Technical Capacity.

Items Pertaining to Managerial Capacity:

1. A clear identification of the owner or other responsible legal body for the water system.
2. A commitment from the owner or controlling body to adhere to and periodically review and update the Long-Range Plan.
3. An organizational chart for the water system, showing all staff and their role in the organization. Also indicate any license or certification requirements of the positions.
4. A discussion of any anticipated or on-going operator training and certification efforts.
5. A general operation and management plan for the water system, addressing such items as: routine inspections, planned equipment replacements, equipment calibration, emergency procedures, record keeping, reporting and similar activities
6. A discussion of the billing and collection procedure to address such items as: Is water use metered or estimated? If estimated, what is the basis for the estimate? If metered, who reads the meters? Are the meters tested periodically? What is the bill collection success rate? Please include any procedures in place to manage delinquent accounts. Are revenues collected sufficient for current and future operation of system?
7. An evaluation of unaccounted for water, and a discussion of plans to address any excessive losses.
8. A listing of any standing O&M contract(s) and the relative responsibilities of the water system and contractor(s) relating to each contract.
9. A statement of compliance with section VII.G of the Rules and Regulations Pertaining to Public Water Systems regarding emergency planning, and a description of the system's legal authority to implement the requirements.
10. A discussion of the adequacy of the spare parts inventory on hand for repairs.
11. A discussion of the adequacy of the chemical supply inventory on hand.
12. A discussion of the water system's existing safety program for chemical handling and other work area activities.
13. Other items as appropriate for documenting and/or maintaining the water system's Managerial Capacity.

Items Pertaining to Financial Capacity:

1. A forecast of all future capital needs and operating expenses to meet SDWA requirements, infrastructure rehabilitation, and system expansion
2. A cash flow analysis to demonstrate revenue sufficiency
3. An operating budget to include such items as: depreciation, reserves, debt service, O&M, salaries, etc.
4. Other items as appropriate for documenting and/or maintaining the water system's Financial Capacity.

Guidelines for Long-Range Plans
New Public Water Systems

Under Section VILH of the Arkansas Rules and Regulations Pertaining to Public Water Systems, each public water system shall have a written Long Range Plan covering a planning period of at least ten years. The plan should be updated every 5 years. New or proposed community and nontransient, noncommunity public water systems shall include a copy of this plan as a part of the preliminary report required under Section XX of the regulations. A Long-Range Plan shall address the following information at a minimum.

Items Pertaining to Technical Capacity:

1. A brief description of the extent of and need for a proposed system.
2. A brief discussion of how the system will maintain an ability to consistently provide an ample quantity of safe drinking water to its customers.
3. A description of all major projects and expansions anticipated within the planning period.
4. A discussion and brief analysis of possible alternatives to the planned project; including interconnection with a neighboring system, purchased water arrangements, alternate ownership, and management arrangements.
5. Water use projections for the planning period.
6. Hydraulic analyses of the proposed distribution system at all pertinent flows and storage tank levels anticipated within the planning period
7. A description of source water adequacy, for both quality and quantity concerns, for the planning period.
8. A brief discussion of the adequacy of source water protection areas, and measures to control potential contaminants, including any applicable legal authority to implement such measures.
9. A brief description of proposed treatment processes, the rational behind their being chosen and their projected performance/adequacy for the planning period.
10. A discussion of how the water system plans to address any waste disposal issues occurring due to water treatment, (e.g.; sludge, backwash water, etc.).
11. A discussion of the operational needs of a proposed system, including the expected number of licensed operators required.
12. Address any laboratory/water quality monitoring needs anticipated within the planning period.
13. Address the water system's plans for complying with applicable state and federal regulations anticipated to be finalized within the planning period.
14. A statement of intent to comply with section XIV.F of the Rules and Regulations Pertaining to Public Water Systems regarding plumbing inspection and sewage disposal requirements, and a description of the system's legal authority to implement the requirements.
15. A statement of intent to comply with section Vll.E of the Rules and Regulations Pertaining to Public Water Systems regarding the establishment of a cross-connection control program, and a description of the system's legal authority to implement the requirements.
16. Other items as appropriate for documenting and/or maintaining the water system's Technical Capacity.

Items Pertaining to Managerial Capacity;

1. A clear identification of the owner or other responsible legal body for the water system.
2. A commitment from the owner or other controlling body to adhere to and periodically review and update the Long-Range Plan.
3. An organizational chart for the water system, showing all anticipated staff and their role in the organization. Also indicate any license or certification requirements of the positions.
4. A discussion of any anticipated operator training and certification efforts.
5. A general operation and management plan for the water system, including such items as: routine inspections, planned equipment replacements, equipment calibration, emergency procedures, record keeping, reporting and similar activities.
6. A description of the proposed billing and collection procedures, along with adequacy of revenues for system operation.
7. A statement of intent to comply with section Vll.G of the Rules and Regulations Pertaining to Public Water Systems pertaining to emergency planning, and a description of the system's legal authority to implement the requirements.
8. A discussion of the adequacy of the spare parts inventory to be on hand for repairs.
9. A discussion of the adequacy of the chemical supply inventory to be on hand.
10. A brief discussion of the owner's and chief operator's public water system operation experience and compliance history (if such exists).
11. A brief discussion of the water system's anticipated safety program for chemical handling and other work area activities.
12. Other items as appropriate for documenting and/or maintaining the water system's Managerial Capacity.

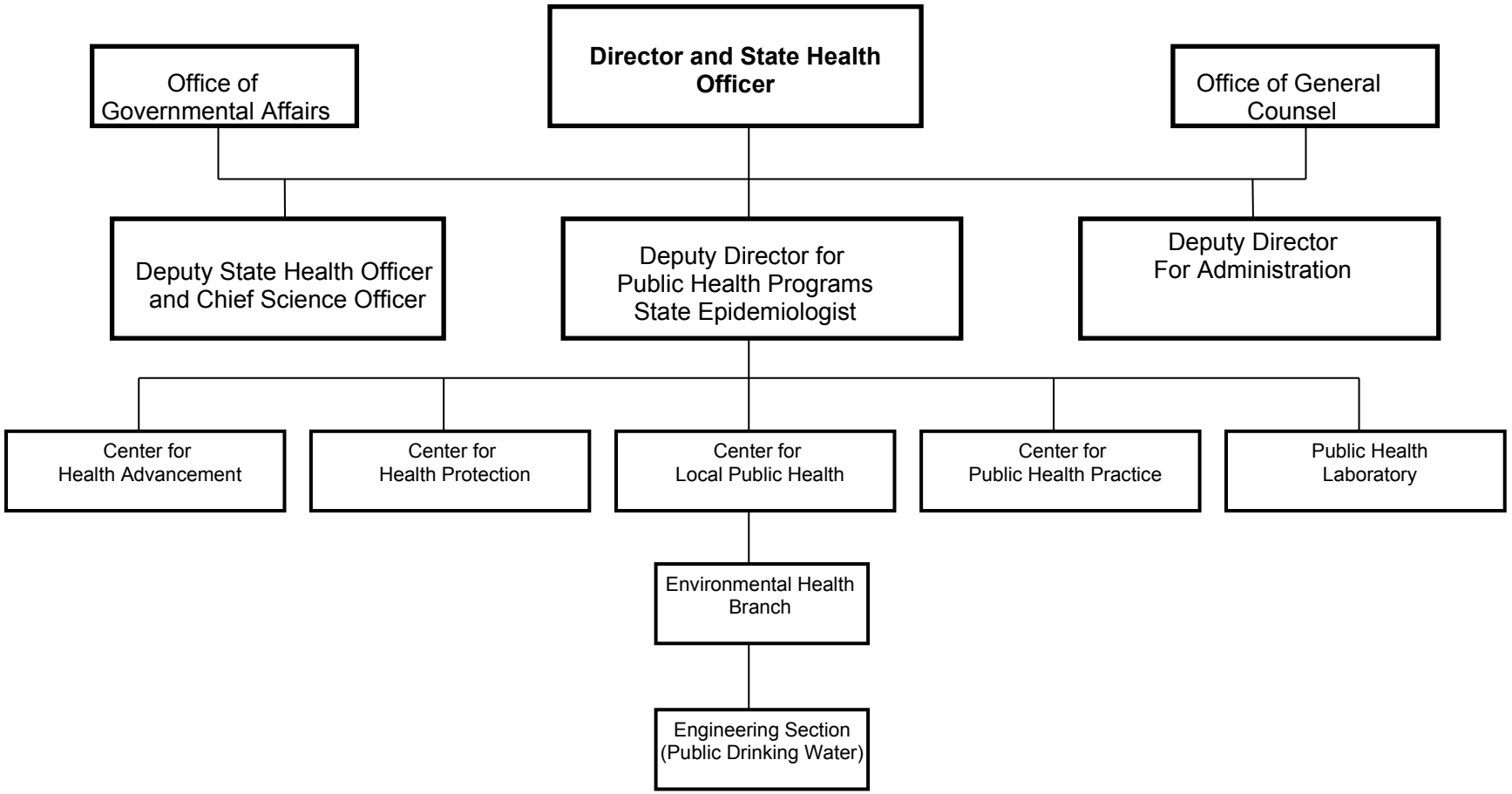
Items Pertaining to Financial Capacity:

1. A forecast of all future capital needs and operating expenses to meet SDWA requirements, infrastructure rehabilitation, and system expansion.
2. A cash flow analysis to demonstrate revenue sufficiency.
3. A proposed operating budget to address items such as: depreciation, reserves, debt service, O&M, salaries, etc.
4. Other items as appropriate for documenting and/or maintaining the water system's Financial Capacity.

Appendix B

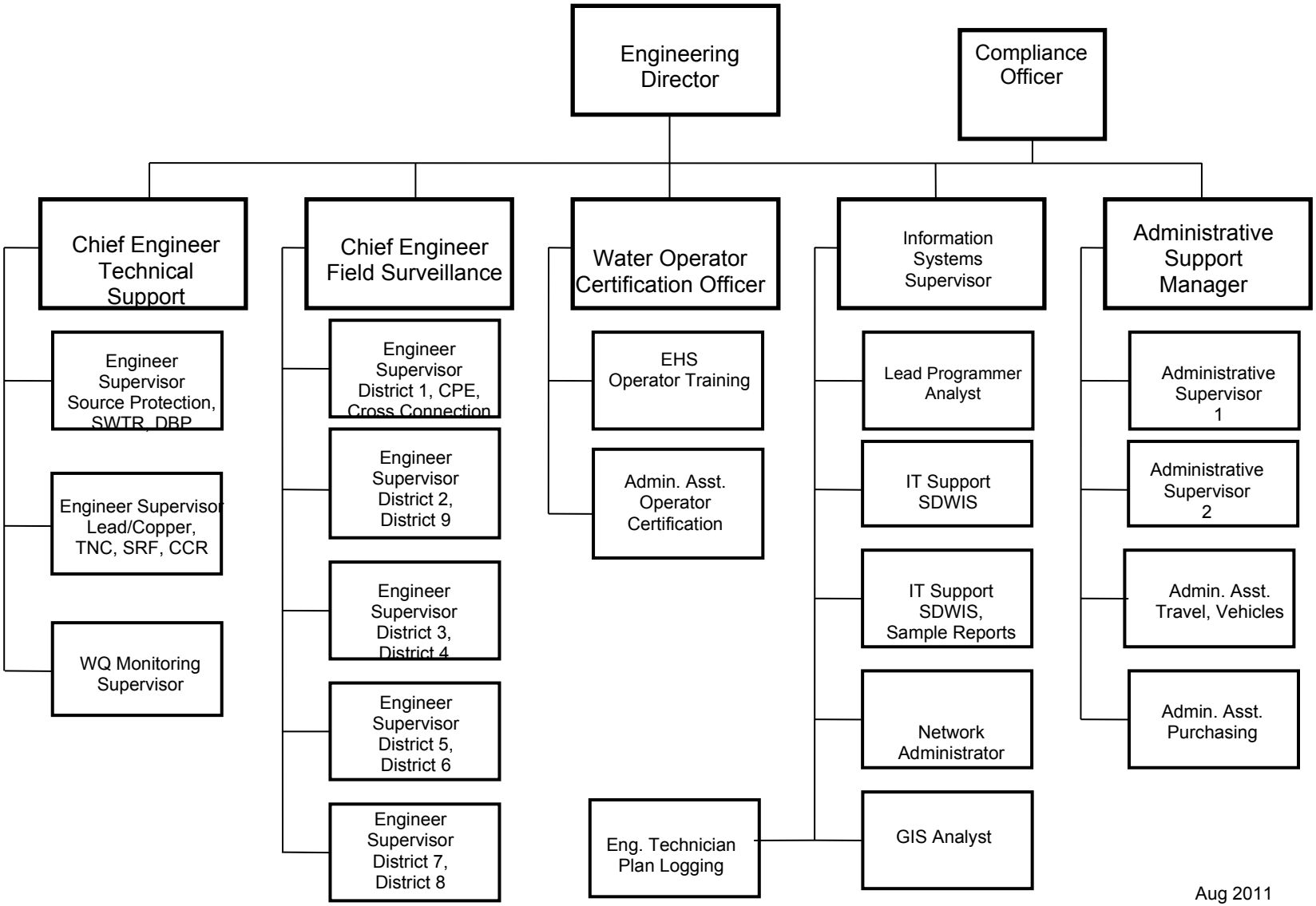
ADH Organizational Structure

Arkansas Department of Health



Aug 2011

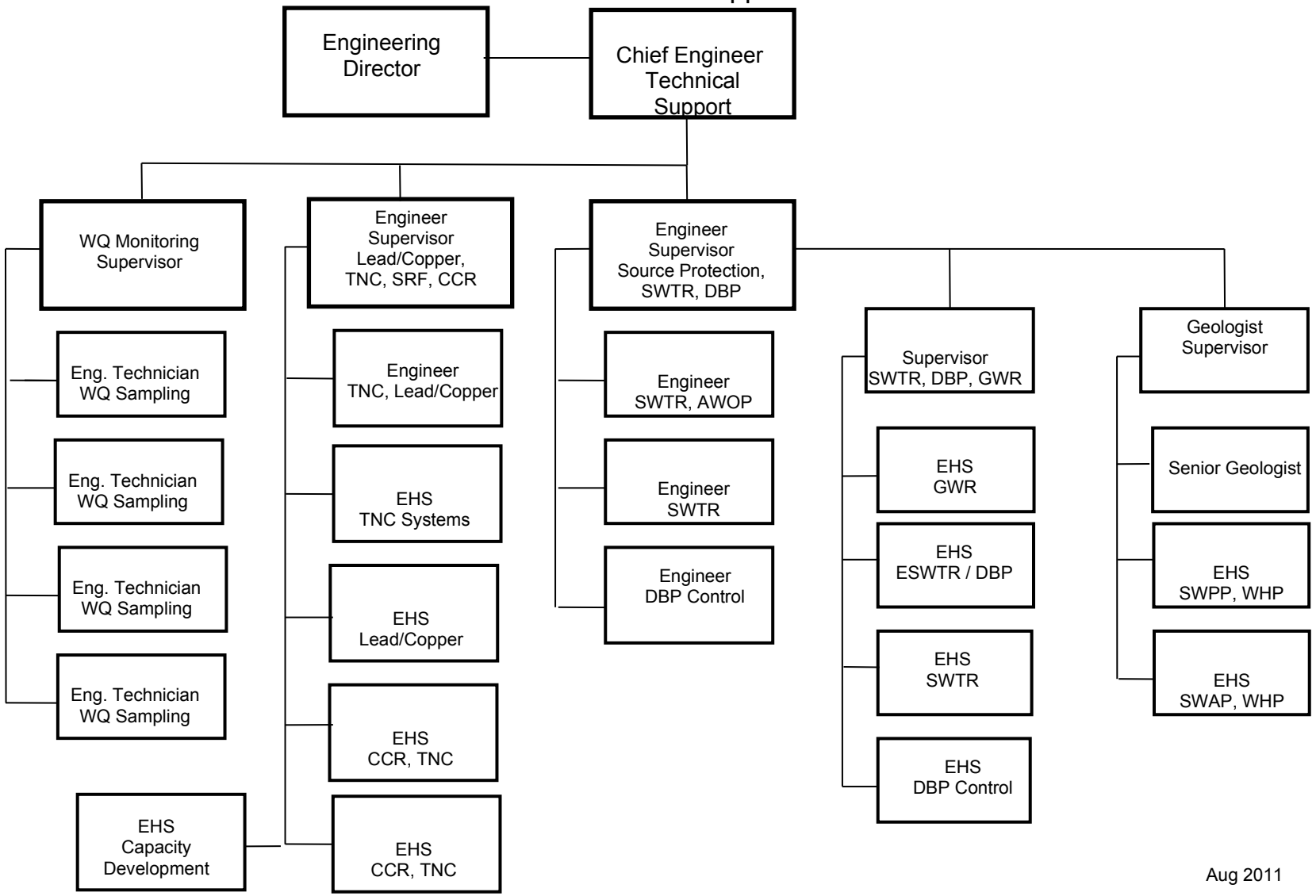
Engineering Section, Arkansas Department of Health



Aug 2011

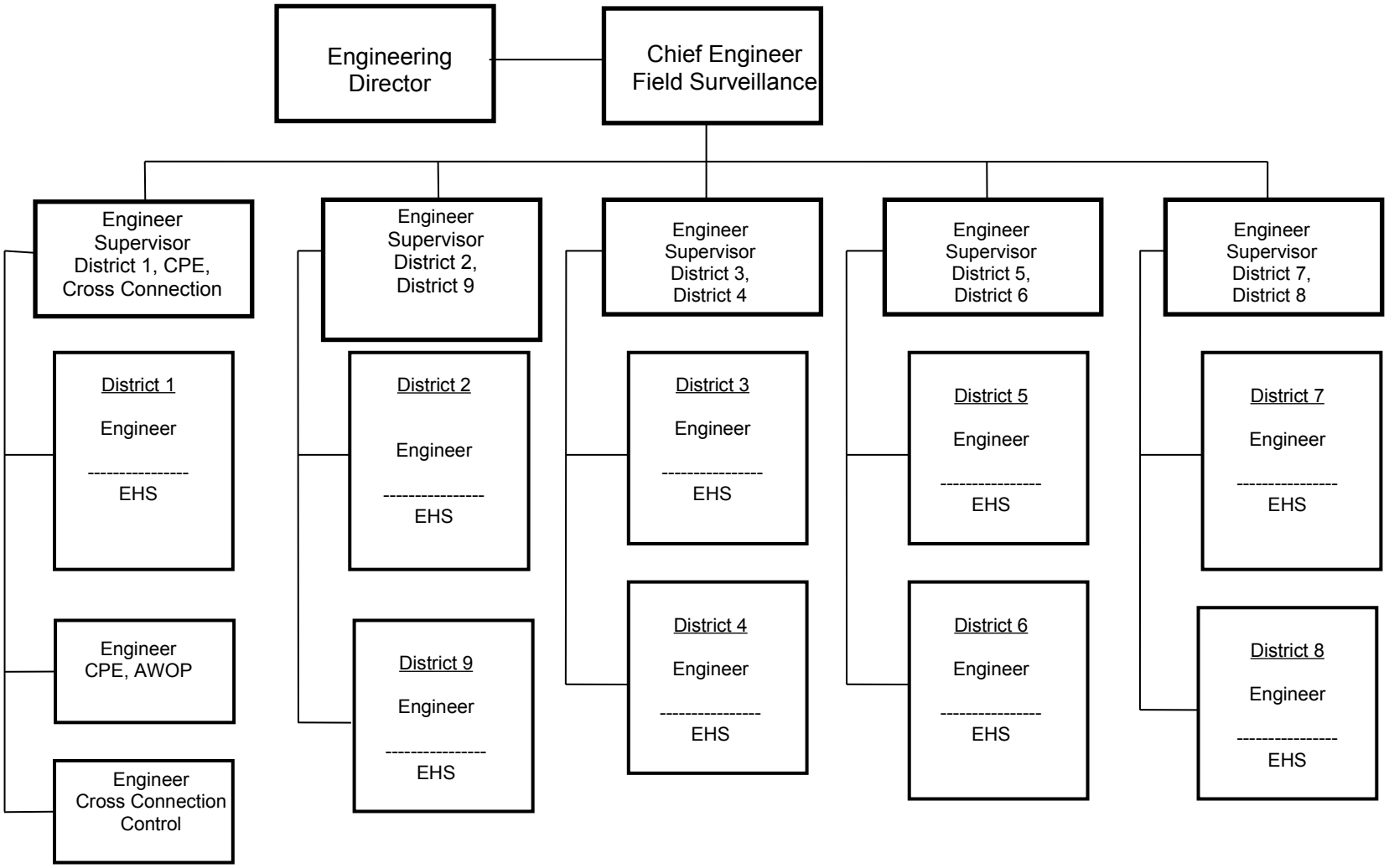
Engineering Section, Arkansas Department of Health

Technical Support



Aug 2011

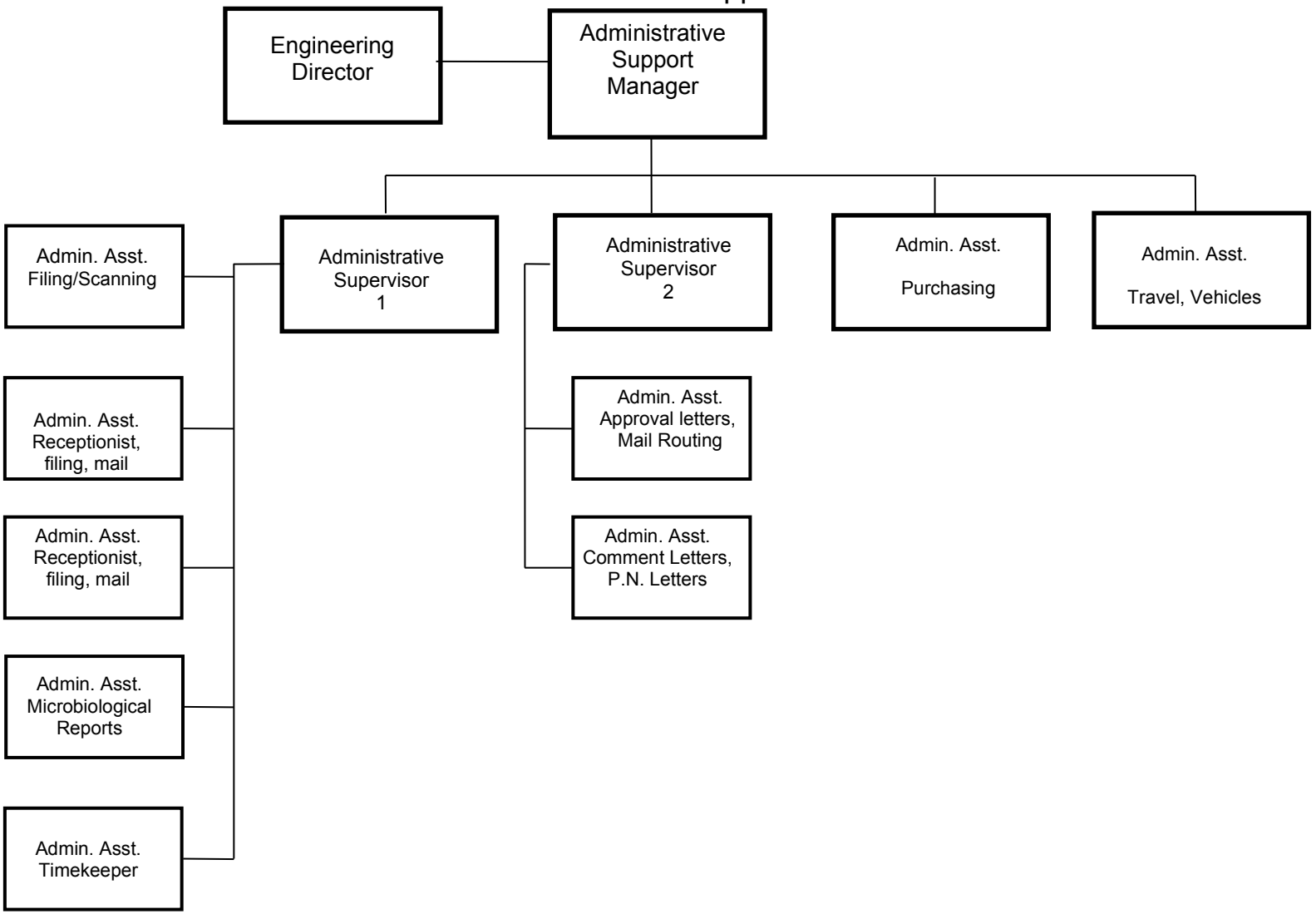
Engineering Section, Arkansas Department of Health
Field Surveillance



Aug 2011

Engineering Section, Arkansas Department of Health

Administrative Support



Aug 2011

Appendix C

Stakeholders List

ID	Titl	First Name	Last Name	Position	Company	Address	City	Sta	Zip
1	MR	RON	HILL		ARKANSAS SOIL & WATER CONSERV	101 EAST CAPITOL, SUIT	LITTLE ROCK	AR	72201
2	MR	DAVID	MEADOR		ARKANSAS SOIL & WATER CONSERV	101 EAST CAPITOL, SUIT	LITTLE ROCK	AR	72201
3	MR	RANDY	POLK		ARKANSAS SOIL & WATER CONSERV	101 EAST CAPITOL, SUIT	LITTLE ROCK	AR	72201
4	MR	JEFF	FORD		ARKANSAS RURAL WATER ASSOCIAT	240 DEE DEE LANE	LONOKE	AR	72085
5	MR	DENNIS	STERNBER	DIRECTOR	ARKANSAS RURAL WATER ASSOCIAT	240 DEE DEE LANE	LONOKE	AR	72085
6	MR	MARK	ROUNSAVAL	DIRECTOR	COMMUNITY RESOURCE GROUP, IN	2423 EAST ROBINSON A	SPRINGDALE	AR	72764
7	MR	MICHAEL	STONER		COMMUNITY RESOURCE GROUP, IN	2423 EAST ROBINSON A	SPRINGDALE	AR	72764
8	MR	HAROLD	HUNTER		COMMUNITY RESOURCE GROUP, IN	8 SHACKLEFORD PLAZA	LITTLE ROCK	AR	72211
9	MS	DARALEEN	WILES		COMMUNITY RESOURCE GROUP, IN	2423 EAST ROBINSON A	SPRINGDALE	AR	72764
10	MS	MARKEY	FORD		ARKANSAS DEPARTMENT OF ECONO	ONE CAPITAL MALL	LITTLE ROCK	AR	72201
11	MR	JERRY	VIRDEN		RURAL UTILITIES SERVICES	700 W CAPITAL	LITTLE ROCK	AR	72201
12	MR	LES	PATTERSON		HOPE WATERWORKS	PO BOX 2020	HOPE	AR	71801
14	MR	JIM	HARVEY		ARKANSAS WATER & WASTEWATER	PO BOX 1789	LITTLE ROCK	AR	72203
15	MR	JOHN	WOODRUFF		ARKANSAS MUNICIPAL LEAGUE	PO BOX 38	NORTH LITTL	AR	72115
16	MR	DAVID	MORRIS		COUNTY JUDGES ASSOCIATION OF A	1415 WEST 3RD	LITTLE ROCK	AR	72201
17	MR	JEFF	STONE	ENGINEER	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205
18	MR	TED	SCHLUETER	ENGINEER	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205
19	MR	TREVOR	BOWMAN	ENGINEER	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205
20	MR	BOB	MAKIN	ASSISTAN	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205
21	MR	MARTIN	NUTT	TRAINING	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205
22	MR	TODD	STUFF	ENFORCE	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205
23	MR	CHARLES	RANDEL		METROPLAN	201 EAST MARKHAM ST	LITTLE ROCK	AR	72201
25	MR	SHERMAN	KINYON		BENTON COUNTY RURAL DEVELOPM	PO BOX 37	CENTERTON	AR	72719
26	MR	RON	BROWN		NORTH LITTLE ROCK WATER DEPT	1500 WEST MARYLAND A	NORTH LITTL	AR	72120
27	MR	ALAN	FORTENBE		BEAVER WATER DISTRICT	PO BOX 400	LOWELL	AR	72745
28	MR	WENDELL	CHAPMAN		GRAND PRAIRIE REGIONAL WATER D	PO BOX 112	STUTTGART	AR	72160
29	MR	PERRY J	NELSON		PRESCOTT WATER & SEWER SYSTE	PO BOX 676	PRESCOTT	AR	71827
30	MR	HARRY	WILLIARD		TRI COUNTY REGIONAL WATER	PO BOX 4030	RUSSELLVIL	AR	72811
31	MR	DALE	KIMBROW		NORTH LITTLE ROCK WATER DEPT	1500 WEST MARYLAND A	NORTH LITTL	AR	72120
32	MR	JAMES	NICKS		LEE COUNTY WATER ASSOCIATION	PO BOX 537	MARIANNA	AR	72360
33	MR	SCOTT	BOGGS		SEARCY WATER & SEWER	PO BOX 1319	SEARCY	AR	72143
34	MR	WILLIAM G	DANIEL			207 SOUTH VANCE ST	POCOHONTA	AR	73455
35	MR	WILLIAM	WINN		SPRINGDALE WATER UTILITIES	PO BOX 769	SPRINGDALE	AR	72765

ID	Titl	First Name	Last Name	Position	Company	Address	City	Sta	Zip
36	MR	STEVEN L	RAND		WARREN WATER & SEWER SYSTEM	106 NORTH MYRTLE STR	WARREN	AR	71671
37	MR	JIM	WILSON		MAGNOLIA WATER SYSTEM	PO BOX 666	MAGNOLIA	AR	71754
38	MR	STEVE	PARKE	UTILITY D	CITY OF FORT SMITH	3900 KELLEY HWY	FORT SMITH	AR	72904
39	MS	LISA	WHITE		TEXARKANA WATER UTILITIES	PO BOX 2008	TEXARKANA	TX	75504
40	MS	JEANNETT	STRAUB		LEAGUE OF WOMEN VOTERS OF AR	2020 WEST 3RD ST	LITTLE ROCK	AR	72205
41	MS	JEANNETT	STRAUB		LEAGUE OF WOMEN VOTERS OF PUL	5209 "G" ST	LITTLE ROCK	AR	72205
42	MR	JIM	BAILEY	DIRECTOR	ARKANSAS ENVIRONMENTAL ACADE	SAU TECH STATION	CAMDEN	AR	71701
43	MS	ANN	HAMILTON		ASPE/ACECA	1320 BROOKWOOD SUIT	LITTLE ROCK	AR	72202
45	MR	RENE	LANGSTON		SPRINGDALE WATER UTILITIES	PO BOX 769	SPRINGDALE	AR	72765
46	MR	ROBERT	WHITE		BLYTHEVILLE WATERWORKS	PO BOX 308	BLYTHEVILL	AR	72316
47	MR	W GLENN	HOLMES		EL DORADO WATER UTILITIES	PO BOX 1587	EL DORADO	AR	71731
48	MR	JEROME	ALFORD		BOND CONSULTING ENGINEERS	PO BOX 726	WEST MEMP	AR	72303
49	DR	MARK	GROSS, PE			11183 BLACK OAK ADDIT	FAYETTEVIL	AR	72701
50	MR	STEVE	WEAR		CONWAY COUNTY REGIONAL WATE	PO BOX 296	MORRILTON	AR	72110
51	MR	ALAN JAY	STALLARD	GRANTS A	NORTH ARKANSAS ECONOMIC DEVE	PO BOX 190	HARRISON	AR	72602
52	MR	PAUL	BATES		SOUTHEAST ARKANSAS ECONOMIC	PO BOX 6806	PINE BLUFF	AR	71601
53	MR	LARRY	WOOD		NORTHWEST ARKANSAS REGIONAL	PO BOX 745	SPRINGDALE	AR	72765
54	MR	MARVIN	FINCHER		SOUTHWEST ARKANSAS ECONOMIC	PO 767	MAGNOLIA	AR	71753
55	MS	PAT	HEUSEL	DIRECTOR	WEST ARKANSAS ECONOMIC DEVEL	1820 HIGDON FERRY RD	HOT SPRING	AR	71913
56	MS	DIANE	NORMAN		EAST ARKANSAS PLANNING & DEVEL	PO BOX 1403	JONESBORO	AR	72403
57	MS	MITZI	MORRIS		WHITE RIVER PLANNING & DEVELOP	PO BOX 2396	BATESVILLE	AR	72501
58	MS	EVELYN	WARD		ARKHOMA REGIONAL PLANNING CO	PO BOX 2067	FORT SMITH	AR	72901
59	MS	LIBBY	FORT		CENTRAL ARKANSAS PLANNING & D	PO BOX 300	LONOKE	AR	72086
60	MR	GEORGE	LEONARD		WESTERN ARKANSAS PLANNING & D	PO BOX 2067	FORT SMITH	AR	72901
61	MS	GENEVIEV	BURTCHELL		ARKANSAS-TEXAS COUNCIL OF GOV	PO BOX 5307	TEXARKANA	AR	75501
62	MR	JOHN	SICOLA	EXECUTIV	MISSISSIPPI-ARKANSAS-TENNESSEE	157 POPLAR AVE SUITE	MEMPHIS	TN	38103
63	MS	LEANNE	BIERNAT		ARKANSAS DEVELOPMENT FINANCE	100 MAIN ST SUITE 200	LITTLE ROCK	AR	72201
64		FAY	SMITH		ECS PLANNING & MANAGEMENT	2201 WASHINGTON AVE	CONWAY	AR	72032
65	MR	CARL	YATES, PE		MCGOODWIN, WILLIAMS, & YATES	909 ROLLING HILLS DRIV	FAYETTEVIL	AR	72701
66	MR	W WILLIAM	GRAHAM, J		W WILLIAM GRAHAM, JR, PE	PEOPLES MART BLDG S	LITTLE ROCK	AR	72205
67	MR	DAVID	REAZIN	ENVIRON	USEPA REGION 6 (6-WQ-SD)	1445 ROSS AVENUE	DALLAS	TX	75202
68	MS	HEATHER	HIMMELBER	DIRECTOR	ENVIRONMENTAL FINANCE CENTER	901 UNIVERSITY BLVD, S	ALBUQUERQ	NM	87106
69	MS	ROBIN	MICHAELS	ENVIRON	DIVISION OF ENGINEERING, ARKANS	4815 WEST MARKHAM S	LITTLE ROCK	AR	72205

ID	Titl	First Name	Last Name	Position	Company	Address	City	Sta	Zip
70	MR	MARVIN	BREWER	MANAGER	MENA WATER & SEWER DEPT.	701 MENA ST	MENA	AR	71953
71	MR	LARRY	HEISSERER	ADEQ	CONSTRUCTION ASSISTANCE DIVISI	8001 NATIONAL DRIVE	LITTLE ROCK	AR	72219
72	MR	ROBERT	HART	CHIEF EN	DIVISION OF ENGINEERING, ARKANS	4815 W MARKHAM ST - S	LITTLE ROCK	AR	72205
73	MR	HAROLD	SEIFERT	DIRECTOR	DIVISION OF ENGINEERING, ARKANS	4815 W MARKHAM ST - S	LITTLE ROCK	AR	72205
74	MS	JUDY	ALEXANDER	GRANTS	AR DEPT OF ECONOMIC DEVELOPME	ONE STATE CAPITOL MA	LITTLE ROCK	AR	72201
75	MR	RICHARD	HARRIS	GRANT C	DEPT OF RURAL SERVICES	101 E CAPITAL SUITE 202	LITTLE ROCK	AR	72201
76	MR	JERRY	MARTIN	PRESIDEN	ENGINEERING SERVICES INC	PO BOX 282	SPRINGDALE	AR	72765
77	MR	MARVIN	BREWER	MANAGER	MENA WATER DEPARTMENT	701 MENA ST.	MENA	AR	71953

Appendix D

Capacity Development Strategy
Stakeholder Meeting

April 19, 2000
Little Rock, Arkansas

CAPACITY DEVELOPMENT STRATEGY
STAKEHOLDER MEETING

Held April 19, 2000
Little Rock, Arkansas

Sponsored by
Arkansas Department of Health

Facilitated by
The University of New Mexico Environmental Finance Center

Summary Report

This report summarizes the key findings from the initial Stakeholder Input Session for the Arkansas Capacity Development Strategy. The Input Session was sponsored by the Arkansas Department of Health and was facilitated by the University of New Mexico Environmental Finance Center (EFC). The EFC would like to thank all of the participants for their willingness to share ideas, for their openness during the input session, and for their time and energy. Participant input is crucial in the successful development of the ADH Capacity Development Strategy.

The purpose of this meeting was to gather information and insight from various groups and individuals who have an interest or 'stake" in water systems so that their input can be considered, and where possible or appropriate, incorporated into the Capacity Development Strategy. Several types of representative groups were invited to attend the session, such as: water associations, water system operators, local governments, other state governments, federal agencies, and assistance providers. It is important to have a continuing dialogue between the stakeholders and the regulatory and funding agencies as the Capacity Development Strategy is implemented. A stakeholder group can work collaboratively to meet the common goal of increasing the capacity of water systems to provide safe drinking water to all Arkansas residents. A list of invitees to the input sessions and a list of actual attendees are attached to the end of this report along with a copy of the letter inviting the participants.

The Stakeholder Input Session followed the agenda below.

- Welcome and Introduction
- SDWA Requirements for Capacity Development Strategy
- Impairments and Enhancements to Capacity Development
- Arkansas' Current Activities in Capacity Development
- Priorities and Goals for a Strategy

The first session was a presentation on the requirements of the strategy to provide all attendees with a common starting point and a common understanding of the strategy process. All other topics were input sessions. Each input session was preceded by a very brief introduction to the topic and then attendees were asked to brainstorm ideas related to the topic. The attendees were divided into smaller groups, and one person in each group recorded ideas and notes. Following the discussions, one member of each group was asked to report on their ideas to the main group.

Brief Background on the capacity Development Strategy Process

The 1996 (SDWA) amendments included requirements that the state must develop a Capacity Development Strategy for existing public water supply systems. In this context, capacity development is having the technical, managerial, and financial capabilities to operate over the long term in compliance with all state and federal regulations while providing safe, reliable, quality water at an affordable price. Capacity development is meant to be a process of continual improvement, not a single point in time. An individual system's capacity falls along a continuum of capacity; all systems can improve their capacity and no system is defined as "non viable" under this concept.

To assist systems in improving their technical, managerial, and financial capacity, states must create a Capacity Development Strategy (a written plan) to indicate how they will provide assistance. The five elements that must be considered are:

- Method of prioritizing systems most in need of technical, managerial, and financial improvements;
- Identification of factors that impair or enhance capacity within the state;
- Determination of how the state will use its resources and authorities to: assist systems in complying with regulations, encourage systems to form partnerships, and assist systems with the training and certification of operators;
- Development of a means of establishing a baseline and measuring improvements in system capacity;
- Identification and involvement of individuals interested in the strategy process.

The state must develop and implement a capacity development strategy or it risks losing a portion of the money allocated for the State Revolving Fund. The SRF is funded by a federal grant from EPA, that is matched with state funds, and the money is loaned out to water systems to fund improvements. EPA does not have any mandates on the actual content of the plan; the state is free to develop a plan that will best meet the needs of the water systems in the state. However, the state must consider input from stakeholders to ensure that the strategy does meet the needs of the systems.

State strategies are meant to be "living" documents meaning that they are not just to be developed and put on a shelf. The initial strategy should be thought of as a starting point only. The plan outlined in the strategy should be implemented, measured, reviewed and revised as the state moves forward. Two years after the enactment of the strategy and every three years after that, the states must report on the progress of the strategy. This reporting process will help ensure that the state is continually evaluating and revising its strategy.

Summary of Discussions

The remainder of the session was done in the format of small groups. The small groups were asked to input on various topics and then come to a consensus within the group as to the top two or three most important items. The top items were then reported back to the entire group. The following sections summarize each of the input sessions. Additional comments are contained as Attachments to this document.

Input Session 1: Factors that Encourage or Impair Capacity Development in Water Systems

In this session, the attendees were asked to think about the current situation in the State and how various activities, laws, regulations, or other factors impair (hurt) or enhance (help) water systems achieve greater technical, managerial, or financial capabilities. The participants were asked to think about the categories of structural, legal/regulatory, tax, institutional, economic, demographic and other in developing the list of impairments and enhancements. Each group was asked to brainstorm the items that encouraged and impaired capacity and then choose the top two most significant impairments and the top two most important enhancements. These top items were then discussed as a large group.

All of the small groups discussed lack of training and public education as major impairments to capacity. Primarily, the concern related to a lack of awareness on the part of the general public of what the true costs of producing and delivering quality water really are. This lack of understanding includes a lack of knowledge on the part of some governing bodies as to the true costs, including the need to adequately pay operators.

The fact that there is no mandatory training for governing bodies of water systems was considered an impairment. Water board members lack management training, and there is not a lot of continuity or knowledge among current board members.

Another major impairment discussed was not treating water systems as a business. A number of systems are reluctant to raise rates, and smaller systems also carry a higher debt load. One group felt that funding is too easy for small systems to obtain to fix problems, so the systems may not feel the need to properly operate and maintain themselves. There is also little follow-up by the funder to ensure that the system is being maintained over the long run.

Politics, at the local, state, and federal levels also contribute to impairing capacity. One group felt that smaller water companies are more susceptible to politics than larger ones. Many small systems value autonomy, and do not consider regionalization as an option. Another impairment discussed was the relationship between ADH and communities. It was felt that communities calling ADH with a problem often do not get the help they need. Lack of funding for source water protection was another impairment discussed. The inability to follow-up with technical assistance after the technical assistance contractors (CRG and ARWA) do a capacity assessment was also discussed as an impairment to capacity.

All groups felt that the amount and diversity of technical assistance available to water systems in Arkansas, particularly by Community Resource Group and Arkansas Rural Water Association, was a major enhancement to capacity. Arkansas has a high rate of partnering with professional associations, which helps to build capacity. All groups discussed the Water and Wastewater Advisory Committee (WWAC) as an important enhancement.

As other enhancements, Arkansas has plenty of water, and the state capital is easily accessible. Arkansas also has a good licensing and training program available for operators. One group felt that ADH was easy to work with if the local water entity got involved. The fact that EPA has delegated SDWA authority to the state was considered an enhancement as well as the $0.25 per meter user fee, which was considered a good tool in keeping state primacy.

Input Session 2: Current Activities Assisting Public Water Systems

Participants were asked to consider current activities in the state that contribute to capacity development, such as sanitary surveys, source water assessments, operator certification, technical assistance contracts, and others. Participants were then asked to brainstorm programs that could be added, modified, or expanded to better assist water systems improve technical, managerial, and financial capacity. This could be a new program or a revision or expansion of an existing program. Participants were given some information on programs that are being developed or implemented in other states to give them an idea of the range of topics and programs that can be included in the strategy. Participants were then told to realize that there is insufficient resources to do everything (both personnel and money), so they should prioritize the top one or two most important programs for the state to implement. These programs were reported out to the large group and are described below. The complete list of programs is contained in the Attachment.

- ***Public Education*** A major activity that all the discussion groups mentioned was public education. All groups felt that educating the public on the true cost of producing water was crucial. One group suggested developing a multi-media/multi-agency public education program on the cost of providing water. This could include events at schools, inserts in billing statements, producing videos, radio and television public service advertisements, and the creation of a speakers bureau. Other suggestions included offering tours at water plants and creating an Internet site with information on the cost of producing safe water.

- ***Board Member and Operator Training*** Another major activity mentioned by all groups was more training for operators and board members. It was mentioned that there was a less than 50% pass rate on the operator examinations. It was suggested that ADH revise its certification test to evaluate the appropriateness and ensure that the tests are relevant to the training material. It was suggested that 2% of the SRF be used for operator training as well as board member training and that training be offered via videos and the Internet. One group mentioned that most local libraries have Internet access. One suggestion was to mandate training for board members and staff prior to closing a loan. It was felt that this training needed to be repeated periodically because of turnover in board members. It was suggested that more training be offered for water board members and for city council members. A discussion in one group was held on the possibility of passing additional legislation which would mandate training. It was mentioned that for this to happen, a coalition of industry groups and associations would need to be formed.

Input Session 3: Goals of Capacity Development Strategy

Each participant was asked to think about a main goal that he or she would have for the strategy, particularly in terms of what the strategy would accomplish in 5 years. Each participant was asked to write down on a piece of paper the one thing that he/she wished the strategy would accomplish if it could only accomplish one thing. All of the responses were read at the meeting and categorized. The responses fell into three main categories, which are listed below. Other responses are contained in the Attachment.

The goals presented by the participants can be summarized in three main categories: education/training; financial; and providing safe drinking water.

- ***Education/training:*** One goal of the capacity development strategy was the increased awareness by the public of the importance of and the costs of providing safe drinking water. This would take an investment of time and effort but would result in the consumer understanding of why regulating agencies like the ADH exist. Another main goal was training for board members, which would result in a more effective and efficient operation of water systems.

- ***Financial:*** One goal was the establishment of a reserve fund from the SRF program to make grants or 0% loans to larger water systems in order to facilitate consolidation with smaller systems.

- ***Providing Safe Drinking Water:*** A goal of the strategy would be an increase in water system compliance rates, better financial operations of water systems, and an increase in public health and safety.

Attachment A
NOTES/COMMENTS FROM INDIVIDUAL GROUPS

Impairments and Enhancements to Capacity Development

Group 1 - Impairments

- Lack of trained personnel
- Not enough money
- Turnover of licensed operators
- Education of the public
- ASWCC will not fund non-profit corps with 0.0. bonds
- People think water should be free Water is cheapest commodity in family budget
- Power struggles over some source areas
- Water plan compliance review
- Not enough grant money left from federal government
- Depreciation expense is ignored
- CPWS are not run like a business
- No continuity to water board (3 year terms)
- Lack of management training
- Water associations are not tax exempt (should be PFB)

Group 1 - Enhancements

- ARWA and CRG are definite enhancements
- WWAC is enhancement, Arkansas is lucky
- EPA delegated control back to
- Plenty of water in Arkansas, Arkansas is a water rich state

Group 2 - Impairments

- The money is too easy to get (Goes hand in hand with politics)
- Politics: local, state, and federal. Politics inhibit positive change.
- Lack of public education.

Group 2 - Enhancements

- Health Department is easy to work with.
- The $.25 user fee is a good place. It keeps state primacy at a low cost.
- Good licensing and training program.

Group 3 - Impairments

- Autonomy - small systems, staying small inhibits, locked in to smaller scale. System desire for autonomy and not regionalization

- Resistance to reserve fund, debt service.
- High debt load, unwillingness to raise rates, emphasis on cost saving.
- Poor job of educating public and governing bodies on difficulty to produce potable water
- Inadequate staffing
- Number and impact of federal regulations

Group 3 - Enhancements

- Technical assistance of SRWA and CRG, and ASWCC - diversity of groups
- Availability of funding sources - more money for systems
- "Can-do" attitude of water operators
- Associations of systems with conferences
- Chemical sampling and analysis
- Sanitary surveys conducted by ADH and CPEs
- Adoption of 10 state standards! AWWA and NSF

Group 4 - Impairments

- For managerial and financial capacity development, water board training is needed. State requirement is needed for all board members to attend 8 hour training every 2 years and will attain points with ADI-I. Technical, financial, and managerial strategy training is needed. Many don't understand the legal responsibilities. ADH should provide training through SSDW SRF funding.
- Partnership of all trade organizations to get the word out on training – improvement promotion of training.
- "Pick up the Phone" - district engineer act as a partner rather than a regulatory agency.
- Technical: licensing program for operator has changed and needs to have materials consolidates. The Distribution License should come out of the Distribution Book – for example. Not out of all the books. ADH needs to test on specifically what's to be utilized.
- $ for source water protection.

Group 4 - Enhancements

- Do provide funds through SRF to those in compliance. Improve public relations so when applications are sent out, the communities know what's available.
- CRG and ARWA now do assessments but after finding the problem they must write up a strategy then turn it over to ADH. But not allowed to share with the community what needs to be done to fix it. After the assessment is turned over to ADH no one knows what happens with it because the contract needs revision to allow the contractor to advise local water association.
- SDWA training of operators is required. Funding comes from the ADH of the SRF. Training need to be contracted out.

- Investigate setting $ aside from the SRF to provide for consolidation and funding for prevention of contamination rather than treatment.
- WWAC review loan application. Arkansas is unique in getting four agencies together. Most states don't have this interagency vehicle.
- Amount and diversity of technical assistance
- Availability of funding
- Water rich state
- 25% meter user fee is good way to keep primacy
- Good licensing and training programs

Goals and Priorities

Education/Training

- Provide an avenue/funding for board training; and access the funding in the SDWA for operator certification and contract out or provide through ADH.
- To better improve the understanding of Board of Directors toward operators, the reason for training, salaries, rates, and regulations.
- Improve training for operators and Boards
- Better understanding of what it takes to be in total compliance
- Coordinate existing state training entities to provide training and assistance to operators, managers, and governing bodies, as needed. Utilize and simplify. Utilize the training section of the ADH, ADEQ, AR Environmental Academy, ARWA. Simplify contact with state agencies by providing training to the receptionist as to the proper people and agencies to talk with.
- Invest time and effort in educating the public on the cost of providing adequate water service to the community addressing the need of adequate operations personnel, good financial management. This would let the public know that there are "no free rides." As time progresses, compliance with the SDWA regulations will be more costly and the public needs to be aware of the costs.
- Expanded training for operator certification.
- Better understanding by the public (consumers) of what it costs to produce safe drinking water. Also that the consumer understands why regulating agencies like the Health Department exist.
- What I hope to get done with this strategy: create and provide public education and awareness from school to community and civic organization on what it take to get a fresh glass of water from the tap and what the cost is. Using: videos (entertaining and informative). outlines, civic presentations, starting a youth group who's mission is clean water for the State of Arkansas. College scholarships can be offered for service hours these students provide.

- More effective and efficient operation and accountability within all of Arkansas water systems, accomplished via public education training for board members, operators, bookkeepers, etc.
- Increased awareness by the public of the importance and costs to provide safe drinking water.

Financial

- Financing made available for small systems (boards and stuff), public awareness, training, videos and Webb page. Financing for small systems wouldj be in the form of loans.
- The worst systems need the most drastic solution, ie, consolidation with a larger, more viable system. So investigate establishing a reserve fund out of SDW SRF funds to make grants or 0% loans to the larger PWS to consolidate with the down-and-out PWS.

Safe Drinking Water

- The state has state-wide comprehensive plan to protect water sources from pollution/contamination caused by industrial and agricultural waste and urban sprawl as well as a plan for implementing water board and operator mandatory education and licensing and the best plans for regional water systems based on source and need analysis utilizing technical, managerial and financial expertise and the establishment of state regulation that municipal governments cannot take over qualified water commissions.
- Water system compliance rates increased.
- Better financial operations: correct water rates, monies dedicated for proper maintenance and repairs, depreciation accounts funded, good salary levels for good personnel and adequate training expenditures for personnel.
- Realization/awareness of the commitment of the state and PWS to ensure capacity (MFT) through education on all points of regs, compliance, costs, and growth issues of water systems.
- Public health enhancement and harmony.

Other

- Enhance the ability to monitor the financial status of public water systems
- Define which public water system will serve which area throughout the state of Arkansas through the Health Department, Arkansas Soil and Water, Public Service Commission, or combination of three agencies, once for all time! This will probably take 5 to 10 years but it will be worth it.
- Revise the technical assistance provision of the SRF
- Revise the technical assistance contracts to allow on-site assistance.

Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000
Fay W. Boozman, M.D. Director
Mike Huckabee, Governor

April 4, 2000

«Title» «First_Name» «Last_Name»
«Company»
«Address»
«City» «State» «Zip»

RE: Capacity Development Strategy Input Session for Public Water Systems

Dear «Title». «Last_Name»:

Many drinking water systems in the State of Arkansas lack sufficient technical, managerial, and financial capacity (or capability) to consistently supply quality water at an affordable price and in conformance with all the requirements of the Safe Drinking Water Act. To address these concerns, the Arkansas Department of Health (ADH) will be preparing a Capacity Development Strategy.

One of the key elements in the preparation of the Capacity Development Strategy is the involvement and input of stakeholders into the process. We are holding a stakeholders meeting on Wednesday, April 19, 2000, in Little Rock at the Freeway Medical Building in Room 906 from 1:00 PM to 5:00 PM. We would appreciate your attendance and involvement.

The initial input session will follow the general outline presented below.

I. Background and Orientation: Discuss capacity development as a state and national issue
   Goal: Establish a common starting point for discussions

II. Small System Problem Characterization: Discuss problems facing small systems in Arkansas
   Goal: Adopt a common understanding or consensus of the problems

III. Goals for a Capacity Development Strategy: Gain input from stakeholders on the goals and priorities for a strategy
   Goal: Determine the main goals a strategy should achieve

IV. Current Activities and Suggested Additional Activities: Discuss the activities related to capacity development that Arkansas currently conducts and additional activities the stakeholders feel should be added to the strategy
   Goal: Provide input to ADH for additional activities to assist small systems

V. Impairments and Enhancements to Capacity Development
Goal: Provide input to ADH on the things that are currently impairing or enhancing capacity.

Based on the input sessions and additional information gathered, a comprehensive capacity development strategy will be prepared.

Your involvement in this process is critical to forming a comprehensive, acceptable, and implementable capacity development strategy. We look forward to seeing you at the input session on Wednesday, April 19, 2000. Enclosed is a map and directions to the meeting. If you have any questions, please contact Ted Schlueter at 501-661-2623 or by E-mail at tschlueter@mail.doh.state.ar.us. Please RSVP by April 17, 2000 by contacting Robin Michaels at 501-661-2623 or by E-mail at rmichaels@mail.doh.state.ar.us.

Sincerely,

Ted Schlueter, P.E.
Engineer Supervisor
Division of Engineering

SIGN-IN LIST
CAPACITY DEVELOPMENT STAKEHOLDER MEETING

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Appendix E

Capacity Development Strategy
Stakeholder Meeting

June 22, 2000
Little Rock, Arkansas

CAPACITY DEVELOPMENT STRATEGY
SECOND STAKEHOLDER INPUT SESSION

Held June 22, 2000
Little Rock, Arkansas

Sponsored by
The Arkansas Department of Health

Facilitated by
The University of New Mexico Environmental Finance Center

Summary Report

This report summarizes the key findings from the Second Stakeholder Input Session for the Arkansas Capacity Development Strategy. The first meeting was held April 19, 2000. Both meetings were sponsored by the Arkansas Department of Health (ADH) and were facilitated by the University of New Mexico Environmental Finance Center (EFC). The EFC would like to thank all of the participants for their willingness to share ideas, for their openness during the input sessions, and for their time and energy. Participant input is crucial in the successful development and implementation of the ADH Capacity Development Strategy.

The purpose of this meeting was to present information on the ADH draft "Capacity Development Existing Systems Strategy." A list of invitees to the input session and a list of actual attendees are attached to the end of this report, along with a copy of the letter inviting the participants. A copy of the draft strategy was sent to the invitees via E-mail prior to the meeting. Copies were also available at the meeting.

The Second Stakeholder Input Session followed the agenda below.

Welcome and Introduction
Review of Elements Required for Capacity Development Strategy
Prioritization of Systems for Assistance
Assistance with Compliance, Partnering, and Training and Certification
Measurements of Success
Future Stakeholder Involvement

Summary of Discussions
The first topic was a reminder of the elements required for the Capacity Development Strategy. All other topics were input sessions. See Attachment A for a discussion of Capacity Development in general.

The elements that must be considered in the Capacity Development Strategy are:

Method of prioritizing systems most in need of technical, managerial, and financial improvements;
Identification of factors that impair or enhance capacity within the state;
Determination of how the state will use its resources and authorities to:
assist systems in complying with regulations, encourage systems to form partnerships, and assist systems with the training and certification of operators;
Development of a means of establishing a baseline and measuring improvements in system capacity; and
Identification and involvement of individuals interested in the strategy process.

1. Process for Prioritization ofSystemsfor Technical Assistance

The State currently has two lists that are used to prioritize water systems to receive assistance. One list deals with technical criteria and the other with managerial and financial criteria. Points are awarded for various criteria, and systems receiving the highest number of points are highest on the priority list. If there is a tie, the first priority goes to the system serving the smallest population. If a system appears on both lists, it receives a visit from each contractor. Thus far, approximately 30 systems have received assistance from the contractors. Participants were asked if they had any major concerns with the process and any suggestions or improvements for the future.

> According to the assistance providers, some systems on the list already know what their problems are and are in the process of working on them. Others systems don't know what to do. There are systems that have problems that do not appear on either list. If a system has a management problem, they might not show up on the list because they don't report to any regulatory agency.
>
> The prioritization list is a two-year list. By the time they receive assistance, some of the systems on the list have already corrected their problems. The list of violations is by calendar year, and some MCL violations are two or three years old. Maybe two years is too far to use. Some of the systems were on the list because they did not have a certified operator, but have already corrected that.
>
> Other states reserve the opportunity to get direct referrals to the list from within the agency, from technical assistance providers, and others. The contractors providing assistance in Arkansas have the ability to add water systems to the prioritized list.
>
> ADH doesn't score the completed Sanitary Surveys for capacity development, but it is possible to obtain information from the survey about the system to see if it is a likely candidate for receiving technical assistance.

The present rating systems is more reactive. It is important to develop a more proactive method of prioritizing systems for assistance. There also needs to be some flexibility in the method in order to be able to react quickly to systems requesting assistance.

The prioritized list could be reviewed internally by the ADH District Staff and be sent to various agencies for review and suggestions. Also, most funding agencies have some knowledge of systems that are experiencing problems. The Water Wastewater Advisory Committee (WWAC) could also be utilized to identify systems in need of assistance and willing to accept assistance.

Currently Rural Development is monitoring systems that have not filed the required annual reports. These systems are possibly on the verge of experiencing problems. Community Resource Group provides assistance to systems in preparing their financial reports.

The Arkansas Soil and Water Conservation Commission has many systems with deferred loans. They have developed a new tracking system to identify which systems have not filed their annual audits. These systems are possible candidates for assistance. Also, ASWCC had a database of water rates. This system could possibly be used to look at trends in water rates.

2. Assistance with Compliance

There are a number of activities in the State that assist water systems with compliance such as assistance contracts, well head protection program, source water protection program, short school for training, CPEs for surface water systems, sanitary surveys, educational materials, ADH one on one assistance, enforcement program, and the Long Range Plan requirements. The participants were asked to focus on the Long-Range Plan and consider whether or not it is a good TMF building tool. Participants were also asked to think about whether it could be incorporated into the overall capacity development program and what are the barriers and enhancements to using the Long-Range Plan.

The Long-Range Plan is a good tool to build technical, managerial, and financial capacity. Consultants generally charge $5,000 to $15,000 to prepare a plan for a system depending on the size of the system.

Community Resource Group could assist systems with preparing a long range plan. This could be a natural extension of the technical and managerial assessment of the system.

The Arkansas Soil and Water Conservation Commission could request changes and updates to the plan during their audit process.

The Long-Range Plan should be used more actively, as a number of systems don't understand what it is. Most people look at a Long-Range Plan as a future, not as a blueprint for current activities. The Plan needs an annual component and should be approved by the water system governing body.

The Sanitary Survey currently asks the question if a system has a Master Plan. This should be restated to ask if a system has a Long-Range Plan. If a system is in enforcement and does not have a plan, developing one could be part of the enforcement requirements.

ASWCC could ask for changes and updates to the Plan during the required annual audit.

3. Assistance with Partnering

There are several ways in which water systems are encouraged to partner with other systems. During the ADH review of WWAC applications, there are non-mandatory suggestions for partnering. The WWAC review process itself looks for ways in which systems could consolidate. Funding agencies encourage the formation of partnerships. The Arkansas Water Works and Water Environment Association (AWW & WEA) district meetings are opportunities for sharing information. Participants were asked to consider what additional partnering efforts are going on within the state.

Consulting engineers often offer suggestions and recommendations for partnering or consolidation. 1-lowever, in many cases because of political and jurisdictional issues, systems do not take advantage of these opportunities.

Operators are often partnering with others in an informal way to exchange information and share supplies, parts, and equipment. However, water systems in remote areas are too isolated to have opportunities to share with neighboring utilities.

The AWW & WEA district meetings provide opportunities for water system staff to build relationships and participate at the local level. ADI-l has been active at the district meetings, and provides training and support. There is also a strong support from larger utilities at these meetings. The District staff needs to increase their training programs at meetings. It might be possible for the Capacity Development Program to support these meetings, by providing a part-time staff person, or in other ways.

4. Training and Certification

There are many training opportunities in Arkansas. In the previous input session, participants indicated that there was not enough training and the training was not appropriate. Participants in this session were asked if there is currently a problem with notification of available training and how can notification be more effective.

> There are some areas in the state where training is not easily available, but generally there are plenty of opportunities for training. Three is a calendar of training events published by a vendor. It might be possible for ADH to partner with this vendor and create a more complete calendar.
>
> Often when a water system operator attends training, there is no back-up operator. One idea presented was to have a circuit rider operator for systems.
>
> Arkansas Rural Water Training Center should be utilized, without letting other training opportunities in areas lapse.

5. Measurements of Success of Capacity Development Program

Compliance data is one measurement of success of the Capacity Development Strategy, but participants were asked if there are other specific measures of success that could also be used.

Some of the ideas included:

- Increase in attendance at District meetings
- Number of systems helped through technical assistance contractors
- Increase in number of systems, which have a Long-Range Plan
- Number of systems receiving funding for improvements
- Number of Sanitary Surveys done on a routine basis
- Number of Source Water Protection Plans
- Number of SRF projects and total amount of funding for water system improvements
- Track new system compliance to determine if capacity development requirements helped.

6. Further Stakeholder Involvement

Participants were asked how much involvement in the capacity development strategy they wanted.

> The participants did want to be involved in the capacity development strategy implementation and suggested having semi-annual meetings. It was also suggested that ADH utilize other meetings and training events as opportunities to solicit comments and provide updates on the strategy. Participants suggested that the meeting notice be provided thirty days in advance with a structured agenda. Participants agreed to encourage attendance from utilities and other groups.

Attachment A
Brief Background on the Capacity Development Strategy Process

The 1996 (SDWA) amendments included requirements that the state must develop a Capacity Development Strategy for existing public water supply systems. In this context, capacity development is having the technical, managerial, and financial capabilities to operate over the long term in compliance with all state and federal regulations while providing safe, reliable, quality water at an affordable price. Capacity development is meant to be a process of continual improvement, not a single point in time and an individual system's capacity falls along a continuum of capacity. All systems can improve their capacity and no system is defined as "non-viable" under this concept.

To assist systems in improving their technical, managerial, and financial capacity, states must create a Capacity Development Strategy or plan to indicate how they will provide assistance. The five elements that must be considered are:

Method of prioritizing systems most in need of technical, managerial, and financial improvements;
Identification of factors that impair or enhance capacity within the state;
Determination of how the state will use its resources and authorities to: assist systems in complying with regulations, encourage systems to form partnerships, and assist systems with the training and certification of operators;
Development of a means of establishing a baseline and measuring improvements in system capacity;
Identification and involvement of individuals interested in the strategy process.

The state must develop and implement a capacity development strategy or it risks losing a portion of the money allocated for the State Revolving Fund, set up to pay for system improvements. EPA does not have any mandates on the actual content of the plan; the state is free to develop a plan that will best meet the needs of the water systems in the state. However, the state must consider input from stakeholders to ensure that the strategy does meet the needs of the systems.

State strategies are meant to be "living" documents meaning that they are not just to be developed and put on a shelf. The initial strategy should be thought of as a starting point only. The plan outlined in the strategy should be implemented, measured, reviewed and revised as the state moves forward. Two years after the enactment of the strategy and every three years after that, the states must report on the progress of the strategy. This reporting process will help ensure that the state is continually evaluating and revising its strategy.

Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000
Fay W. Boozman, M.D. Director
Mike Huckabee, Governor

June 9, 2000

«Title» «First_Name» «Last_Name»
«Company»
«Address»
«City» «State» «Zip»

RE: Second Capacity Development Strategy Input Session for Public Water Systems

Dear «Title». «Last_Name»:

On April 19, 2000 the Arkansas Department of Health (ADH) held a public input session to allow stakeholders to comment on various aspects of the State's Capacity Development Strategy. The Capacity Development Strategy is required under the 1996 Amendments to the Safe Drinking Water Act and is intended to describe the various activities the ADH will do to assist public water systems in improving overall technical, managerial, and financial capabilities. ADH has taken the input from this meeting along with other information to prepare a draft version of the Capacity Development Strategy.

ADH would now like to invite stakeholders to a meeting on Thursday, June 22, 2000 in Little Rock at the Freeway Medical Building in Room 906 from 1:00 PM to 5:00 PM to review and comment on the draft strategy. Note that the meeting location is the same as at the first stakeholder meeting. If you attended the first stakeholder meeting, you should receive a copy of the draft strategy by E-mail or regular mail sometime next week. Printed copies of the draft strategy will also be available at the meeting. If you do not receive a copy of the draft strategy, you may request one from one of the contacts below. Stakeholders will be asked to specifically comment on the following:

- method of prioritization of systems for assistance
- adequacy of programs to assist systems with compliance
- adequacy of programs to assist systems with partnering
- adequacy of programs to assist systems with operator certification and training
  (please note that ADH is in the process of revising its operator training program and is seeking input to better meet the needs of the water operators)
- measurements of success of the program
- overall ability of the strategy to meet the goals of the Capacity Development strategy

It is important to continue the involvement of stakeholders in this process, so the ADH hopes you will be able to attend this input and comment session. We look forward to seeing you at the input session on Thursday, June 22, 2000. In case you were unable to attend the first meeting, a map is enclosed showing directions to the meeting. If you have any questions, please contact Ted Schlueter at 501-661-2623 or by E-mail at tschlueter@mail.doh.state.ar.us. Please RSVP by June 20, 2000 by contacting Robin Michaels at 501-661-2623 or by E-mail at rmichaels@mail.doh.state.ar.us.

Sincerely,

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Division of Engineering

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Summary of the Arkansas Capacity Development Program for Existing Systems

The following comments are provided to demonstrate how the Arkansas capacity Development Strategy for Existing Systems meets the guidance requirements (pages 46-49) stated in the "Guidance on Implementing the Capacity Development Provisions of the Safe Drinking Water Act Amendments of 1996'

Solicitation and Consideration of Public Comments

Describe how the ADH, in preparing its capacity development strategy, solicited public comments on the program elements listed in 1420(c) (2) (A-E) of the SD WA, as amended in 1996.

The Arkansas Department of Health (ADH), with assistance from the Arkansas Soil & Water Conservation Commission (ASWCC), compiled an extensive list of contacts to invite to the State's stakeholder meetings on Capacity Development. Letters of invitation were mailed to the individuals of the organizations listed in Appendix C of the Arkansas Capacity Development Strategy for Existing Systems. Also, announcements were made at the AWW&WEA district meetings for the first stakeholder meeting. A newsletter article and mailing to the same list of organizations was done for the second stakeholder meeting for Capacity Development.

The ADH held two public meetings on developing Arkansas' Existing Systems Capacity Development Strategy. These meetings were held on April 19, 2000 and June 22, 2000, both in Little Rock. Over 30 people attended the first meeting and 14 people attended the second meeting. Summaries of these stakeholder meetings are shown in Appendices D and E of the Arkansas Capacity Development Strategy for Existing Systems.

Describe how the ADH considered public comment on the program elements.

The EFC facilitated the stakeholder meetings on the Arkansas Capacity Development Strategy for Existing Systems. An overview of the Capacity Development program was given and then input sought on specific issues related to the State's strategy. Small group discussion occurred and various ideas were recorded.

Discuss how ADH evaluated stakeholder comments.

The ADH incorporated the key stakeholder enhancements and impairments identified into the Arkansas Capacity Development Strategy for Existing Systems. The ADH plans to discuss these issues internally with key staff members that have an interest in the areas identified by stakeholders in order to evaluate the implementation of stakeholder input. Due to the short time frame between stakeholder meetings and submittal deadlines of the strategy, it was not possible to adequately evaluate stakeholder input. However, stakeholders did indicate the desire for more and improved water operator training. A survey was distributed in-house to solicit input from staff to determine methods of improving operator training offered at short schools by ADH staff.

At the second stakeholder meeting, ADH requested additional input from stakeholders in regards to what they felt were the needs in regards to operator training.

Program Elements

Describe how the ADH considered the appropriateness of each program element listed in 1420(c) (2) (A-E) in deciding whether or not to include the element in its capacity development strategy.

The ADH evaluated each of the program elements listed in 1420(c)(2)(A-E) and chose to include each element in the Arkansas Capacity Development Strategy for Existing Systems. The ADH is developing a comprehensive capacity development program as a result of including each of these program elements in its strategy.

Strategy

Describe the basis on which the ADH believes that the program elements it has chosen, when taken as a whole, constitute a strategy to assist PWSs in acquiring and maintaining technical, managerial, and financial capacity.

A strength of the Arkansas Capacity Development Strategy is the technical assistance contracts for Technical & Operational and Financial and Managerial capacity development. The ADH is using the DWSRF to fund the Technical Assistance (TA) providers to assist management and staff of water systems to complete the assessment forms. The TA provider also develops a strategy to address the deficiencies found in the assessments. The TA providers to ensure improved performance at the water system conduct follow-up visits and telephone verifications.

All Community and NTNC PWSs are required to have a 10-year long-range plan. These long-range plans are to address technical, financial, and managerial capacity development issues. See Appendix A of the Arkansas Capacity Development Strategy for Existing Systems for Guidelines for Long-Range Plans. The requirement of a long-range plan is for both new and existing systems.

The DWSRF has also factored into the project priority ranking criteria points based on consolidation and interconnection to encourage regionalization of public water systems with more points given for regionalization of smaller systems.

The ADH is also revising its water operator-training program to provide more frequent training opportunities for water operators. The entire Division of Engineering technical staff is to be involved in the revised training program. The goal is to provide operator training short schools at locations around the state.

The Division's newsletter and web site will continue to help provide information to those parties with an interest in water works issues.

Finally, the ADH will continue to work with other organizations that have an interest in water issues in Arkansas. Some of these organizations include the WWAC, AWW&WEA and its

regional districts, ARWA, CRG, ASWCC, Arkansas Environmental Academy, Arkansas Drinking Water Advisory and Operator Licensing Committee, and the Arkansas Consulting Engineers Counsel.

Implementation

Describe the ADH's current implementation efforts for its capacity development strategy.

As stated above, a strength of Arkansas' Capacity Development Strategy is the technical assistance contracts from the 2% set-aside from the DWSRF. The State completed its first fiscal year of the technical assistance contracts on June 30, 2000 for both Technical & Operational and Financial & Managerial Capacity Development. So far, about 30 systems have been provided assistance through conducting assessments and developing strategies between the two contracts. A new priority was provided to each of the contractors (ARWA and CRG) in July for State FY2001 to begin the second year of the contract. An Access database has been developed by each of the contractors and baseline information has been collected for assessments, strategies, and verifications conducted to date.

The ASWCC under the oversight of ADH is utilizing the DWSRF to provide finding for infrastructure improvements. Some DWSRF projects are now in the construction phase.

Describe the State's future implementation efforts for strategy implementation.

Both technical assistance contracts from the 2% DWSRF set-aside have been modified to allow each contractor to participate in CPEs. The contractors, ARWA and CRG, both participated in the Glenwood CPE in August. The intent is to get an additional viewpoint in the CPE program other than from the state primacy agency. Also, it is believed that the contractors will gain a better understanding of what kinds of things the ADH is looking for in evaluating a water system by working together in the field.

The ADH will be focusing on the following areas identified by stakeholders: 1) operator training, 2) modification of the capacity development contract priority list criteria to allow greater flexibility in the program, 3) better use of the long-range plan, 4) methods of measuring success of the program, 5) modification of sanitary surveys to include capacity development questions, 6) board member training and 7) public education. Other items will be incorporated over time as the ADH gains experience implementing the capacity development strategy.

Future stakeholder meetings are planned on a semi-annual basis. The third stakeholder meeting is tentatively planned to be held in Little Rock in November. A fourth stakeholder meeting is also tentatively planned to be held in Hot Springs in late April or early May of next year during the AWW&WEA Annual Conference.