CAPACITY DEVELOPMENT STRATEGY FOR EXISTING PUBLIC WATER SUPPLIES
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COMMUNITY PUBLIC WATER SUPPLY CAPACITY DEVELOPMENT DEMONSTRATION

INTRODUCTION

The provision of a safe, adequate supply of drinking water to all Illinois public water supply consumers is and has been a top priority for the Illinois Environmental Protection Agency since its inception in 1970. Prior to that time, laws and regulations regarding drinking water were in effect in Illinois as early as 1881, under the supervision of various agencies such as the Illinois Bureau of Health or local health departments. Many states operated in a similar manner, providing education and enforcing water supply requirements in order to protect public health.

Before the Safe Drinking Water Act was passed by Congress in 1974, the regulatory agency approach to ensuring safe drinking water in Illinois took a proactive partnership approach. A considerable amount of field staff time was spent in providing technical assistance by evaluating the adequacy and operation of the public water supply, providing assistance during emergencies, and reviewing operational and management problems with the owners and operators of public water supplies. This allocation of resources was believed to be an investment in safe drinking water compliance.

The emerging federal regulations which followed the passage of the Safe Drinking Water Act resulted in an increasingly diminished amount of time spent providing assistance to public water supplies, as personnel spent time reviewing federal regulations; promulgating those regulations at the state level; ensuring that all new requirements were disseminated to the water supply community; evaluating water supply compliance based upon the increasing number of complex regulations generated; and completing a vast array of federal reports. Time frames for compliance, progression of compliance, and formal enforcement assumed a much larger role in public water supply regulation. Funding for federal initiatives supported approximately 20% of the overall drinking water program cost, for many years. Priority state programs began to diminish, as federal requirements were met. For a time, the proportion of federal support increased to approximately 50% of program costs. The phase in of new regulatory requirements and the dollars required to support professional assessment resources, recordkeeping, reporting, and data submission demands needed to implement and maintain those new requirements are not adequately funded by timely federal grant increases.

Illinois initially viewed the Capacity Development program as an opportunity to again place a higher priority upon the provision of assistance to public water supplies. This program ensures that water supplies will have a firm foundation to base operations upon, supported by adequate finances, a defined management structure, and clear communication channels to facilitate the many responsibilities of operating in compliance. After five years of experience with implementation, Illinois remains convinced that, in order to be a permanent part of the base drinking water program, new or enhanced program elements highlighted in the capacity program must be incorporated as an integral part of the engineering evaluation. Illinois has found the use of a “pre-screening” survey to be a useful tool in identifying and collecting data for these program elements. This process is especially important in ensuring that both new and existing water supplies are held to the same standards of operation across the State.

PRIORITIZING EXISTING SUPPLIES WHICH MUST DEMONSTRATE CAPACITY

The long-range goal of Capacity Development is to ensure that each water supply has or is able to acquire all the resources needed to operate in compliance, be familiar with changes in regulations, maintain pace with equipment and technology changes, and keep operational staff well trained so that water consumers will consistently receive the best possible quality drinking water.

Priority One Supplies

In order to achieve this goal, Illinois began with those supplies which were in significant non-compliance (SNC), using a structure of monitoring violations, MCL violations, treatment technique violations, or combinations of violations, to identify those which were experiencing serious problems. These supplies remain the primary targets for Capacity Demonstrations. Public water suppliers in the top priority category are considered to be in a Required Corrective Action category. The Capacity Demonstration can be used to help those suppliers return to compliance; completion of the Demonstration increases the suppliers eligibility status for receiving a State Revolving Loan (if loan criteria can be met and the issuance of a loan will assist in bringing the supply into compliance); and is taken into account during the penalty phase of any formal enforcement action. Illinois' enforcement procedures protocol ensures that non-compliant public water supplies receive formal enforcement within 180 days of the Agency's awareness of the violation. Thus, Illinois has no unaddressed SNCs. Part of the process of addressing each SNC includes the invitation for the existing community public water supplier to complete a capacity development demonstration. If a supplier chooses to complete a demonstration, compliance time may be extended in order to allow the public water system to develop a plan for on-going compliance of the water supply. This process provides an opportunity for the supplier to address the violation(s) cited and to incorporate procedures to prevent other potential violations from occurring as a part of the overall demonstration assessment implementation.

Priority Two Supplies

A review of data collected during engineering evaluations or operational visits is used for the second tier of supplies targeted to complete Capacity Demonstrations. Supplies which indicate, through data collected as a part of routine FOS activities, that sources are not adequate or are deteriorating; those which are approaching 70% - 80% capacity of treatment plant production and are continuing to grow in population served; and those with inadequate storage, distribution pressure problems, or recurring distribution water quality problems, were targeted next. The Restricted Status and Critical Review list published in the Illinois Environmental Register identifies supplies that meet this criteria. These supplies are not allowed to expand until capacity issues have been addressed. Both Permit Section and Field Operations personnel work with these facilities to address problems and return to normal operating status. Problems may be addressed through additions or improvements to existing facilities or construction of new facilities using the State Revolving Loan Fund, Illinois Bond Bank, USDA Rural Development funds, or other low interest loans. Operational problems are addressed primarily through Field Operations onsite assistance. Some problems are referred to the Illinois Rural Water Association for assistance. In these situations, Field Operations personnel work closely with Illinois Rural Water circuit riders to help the supplier and staffs improve operations. Facilities on this priority level are considered as Pending Non-Compliance suppliers.

Priority Three Supplies

The third category of selection is based upon the observations of FOS personnel. FOS personnel who routinely visit a public water supply can require that a Capacity Demonstration be performed. This

requirement can be issued under Section 19 of the Illinois Environmental Protection Act, based upon technical, managerial or financial conditions in the public water supply such as: reductions in operational staff; impending changes to the management of the supply such as changes in ownership, official custodian, certified operator in responsible charge, or other key personnel; failure to submit operational reports, construction, operating or algicide permit applications, or other administrative information essential to the safe operation of the public water supply; increasing operational problems; resource shortages; perceived inability to maintain compliance with new or proposed operational requirements or regulations; or any other conditions (such as numerous boil orders, water outages, treatment inadequacies, or consumer complaints) which the FOS personnel feel may adversely impact the ability of the public water supply to operate in compliance with state and federal regulations, or which may impair water consumer or operator safety. This third priority level is a Preventive Review level.

In order to initially identify those supplies that may be in this Preventive Review level, all other existing public water supplies were required to complete a Capacity Development Screening Survey. Pre-screening surveys have proved to be an important tool in identifying elements that need to be incorporated into the engineering evaluation, and in gathering data on the status of those elements. The Pre-Screening Survey was initially sent to the certified operator in responsible charge of the public water supply prior to a scheduled engineering evaluation. It is now sent to the official custodian and responsible operator in charge of each public water supply prior to an engineering evaluation visit. Field staff review the survey prior to the visit to determine if special information or materials should be taken to the evaluation meeting. Problem or missing items or items of concern are reviewed on site, at the time of the evaluation. Any elements that require further review are identified as a recommendation in the engineering evaluation.

The initial survey was somewhat brief, but has been expanded to target common deficiencies or data voids in the three basic elements of capacity development related to technical, managerial and financial (TMF) issues. Survey elements have also been coordinated with materials required for application of a loan from the State Revolving Loan Fund, to ensure that the capacity development demonstration process can be used by a public water supplier that seeks to obtain SRF funds. As items from the pre-screening survey are incorporated into the engineering evaluation, determination of other needed elements is on-going and will be incorporated into the next pre-screening survey. At some point, Illinois expects to have all elements identified in USEPA guidance and through Agency experience incorporated into the existing engineering process. Once that occurs, the program for existing systems will no longer exist as a separate element of capacity development, but will be a part of the existing engineering evaluation process. New elements that arise through newly promulgated regulations or amendments to existing regulations or statutes will be incorporated into the engineering evaluation through the present regulation review process.

The first part of the survey is a one-page list of items that should be readily available for review from a compliant public water supply that seemingly satisfies Capacity Development requirements. Originals or copies of each item checked as a “yes” should be available for review during the discussion of the completed survey. A file copy for the Agency is requested only of documents that require revision, and are requested on a case-by-case basis. The second part of the survey consists of key questions that are pertinent to demonstrating the ways and means of how a PWS administers some of the technical, managerial and financial aspects of its operation. In essence, the answers, (in discussion form) to these key questions provide valuable insight into the actual existence, timeliness and use of the TMF elements. For example, Illinois has used the pre-screening survey to identify the status of emergency management plans required by Illinois regulations. These plans must incorporate the elements of the federal emergency response plans, as well as other potential emergency situations from drought to

flood. Information required in the pre-screening survey documents whether or not the supplier has kept the information in the plan current and provides an opportunity for the Agency to identify areas that were not addressed. It is expected that, over the next 5 - 9 years, all Illinois community public water supplies will have completed either the Capacity Development Screening Survey or will have prepared a Capacity Development Demonstration. At this time, 620 community public water supplies have submitted the second level pre-screening surveys and received assistance from the Field Operations Section in identifying areas of weakness for capacity development.

USE OF THE SDWA TO ENSURE COMPLIANCE

Capacity Development in Illinois is intended to serve those public water suppliers who consistently work to maintain compliance with regulations by offering a commitment by Illinois EPA to provide input and facilitate assistance in technical, managerial and financial areas of water supply operation. The Capacity Development Strategy is also designed to provide an opportunity to those suppliers who have not always been able to operate in compliance, or who were reluctant to place compliance as a top priority, next to provision of safe, adequate drinking water to all consumers. Illinois EPA has long been committed to the philosophy that ongoing compliance is achieved when both the supplier and Agency representatives work together toward understanding and meeting or exceeding compliance parameters. There will always, however, be a small number of public water suppliers who do not actively pursue compliance with drinking water regulations, for any number of reasons. The Safe Drinking Water Act and Illinois regulations that have been adopted in support of the SDWA are used when formal enforcement is required, after Capacity Development or compliance assistance options have been found to be unsuccessful, or when the nature of the violation is serious.

The Illinois General Assembly has passed legislation amending Section 17.5 of the Illinois Environmental Protection Act (415 ILCS 5/17.5[1998]), which requires that all federal regulations published under the Safe Drinking Water Act be adopted at the State level as “identical in substance” within 12 months of federal promulgation. Section 31 of the Illinois Environmental Protection Act (415 ILCS 5/31) has also been amended to require that public water supplies receive notification of any violations observed by representatives of the Illinois EPA within 180 days of discovery of the violation. The Illinois EPA has adopted an internal enforcement process that escalates in an orderly fashion to ensure that notification is given to a water supplier found in violation, and that failure to correct the violation within a reasonable time frame, results in formal enforcement action.

FACTORS WHICH IMPAIR OR FACILITATE CAPACITY DEVELOPMENT

A time-elapsed view of water supply compliance can be equated to a gnat’s eye view of a taffy pull. The same forces pull compliance in different directions at different times. Some of these occasionally add positive ingredients which “grease” the process. Sometimes, these same forces change direction, and throw in ingredients that make compliance more rigid, and less able to be achieved. Major factors are identified below, with suggestions or comments provided where appropriate as to steps that the Bureau of Water takes to facilitate capacity development.

Factors Which Impair Capacity

The “Nature of the Beast”

The structure and nature of public drinking water supplies are two basic elements that impair capacity. For many years, water consumers took safe drinking water for granted. Water was in underground pipes and came out through home faucets. If the water pressure was good, the water from the tap was

clear and odorless, consumers believed that it was safe to drink. For the most part, in Illinois, this was true in the microbiological arena, as chlorination has been practiced since 1915.

Increasingly precise measurement of the constituents in drinking water as the present technology age developed began to raise the conscientiousness of water suppliers, regulators, health officials and consumers. Consumers began to be more educated about drinking water contamination, source water protection, conservation, and other water issues. As more constituents were discovered in drinking water, the initial reaction was alarm, a desire for a pure drinking water, and significantly increased regulation. As more regulations appeared, more non-compliance issues were raised. Costs of compliance began to mount; both regulators and consumers stepped back to assess trade-offs -- water must be both safe and affordable, especially for low-income or fixed income consumers. As time passes, a more analytical, educated, balanced approach is beginning to surface in regard to drinking water quality.

An additional aspect of public water supply operation that must be taken into account is the make-up of the public water supply itself. Each supply has a unique set of consumers that it serves. Many times, the consumer community served is a mix of industrial, commercial and residential users, in the process of growing, and planning for all aspects of growth. Many small communities, however, are primarily residential communities. Some are growing "bedroom" communities, some are landlocked small communities, some are small housing associations, subdivisions or mobile home facilities with public water supplies that serve a declining, aging population, or a population on fixed incomes. These supplies generally have the most difficulty operating in compliance, as funds for certified personnel are limited, and funds to meet changing regulations, or even to connect to a larger supply, are not available.

These events are beyond the control of the Bureau of Water. The Bureau is committed to carefully follow the regulatory process, to provide comments, data, and input where possible, and to continue to send staff to educational workshops so that the information provided to water suppliers will be both current and technically correct. Staff helps suppliers identify possible solutions, but cannot provide the engineering direction to require the supplier to pursue a course that the Agency deems best. The Agency can identify the end compliance parameter to be met, but the method used remains in control of the supplier, as well as compliance with milestones or deliverables needed to attain compliance.

Operator Constraints

As with any other business, the competency level of both operational personnel and management personnel is a key to good operation. While regulations can be passed to require operational personnel to be certified and to attend educational offerings to increase competency, maintain current awareness of new regulations, and increase operational requirements, elements such as professional dedication, attention to detail, foresight to anticipate and prevent problems, and ability to put knowledge to work to prevent or solve problems remain human elements which cannot be ensured. Workloads, emergencies, illness, or other human factors that lead to overlooking or forgetting routine activities are a part of life, even in the most efficient, conscientious utilities. Support of management to attend educational activities also impacts operator competency. Simply instituting a requirement for continuing education does not ensure that management will include support, either time or cost provisions, to operators to obtain additional education. The availability of courses, both in number of locations and the content of education, are also factors that are outside the control of the operator, to a large extent. Operator salaries and compensation vary widely, even though requirements for technical operations and processes remain fairly consistent or increase in complexity, despite the size of a treatment plant or facility. While some operations are not as large as others, the complexity of

treatment does not relate to size, but to the quality and quantity of source water available to be treated. A small supply with complex treatment, a small consumer base, and low to median salaries can expect to lose young operators to larger facilities who are able to offer higher salaries to support operator families. Regionalization or interconnection of water supplies is not always the answer. The availability of water in quantity, the cost of service, and the distance between supplies are three principle elements that greatly influence the concept of larger water systems.

These factors are primarily outside the authority of the Bureau of Water. Division of Public Water Supplies Field Operations Staff will continue to provide technical assistance to water suppliers to help identify solutions and alternatives to these issues. The Agency works closely with the Environmental Resources Training Center located at Southern Illinois University-Edwardsville, Illinois Rural Water Association, Illinois Potable Water Supply Operators Association, Illinois Section American Water Works Association, local operator associations, and community colleges throughout the State to provide operator training and education to help attain and maintain the best possible operator performance.

Management Constraints

Management (owners, official custodians, suppliers), to a large extent, cannot be "regulated". It is not possible to force public water supply officials or managers to accrue educational credits, or even to place the water supply as the highest level of priority within the scope of overall operations, when a municipal ownership structure exists, or when management consists of elected officials who may only hold a two or four year term of office. Small public water supply systems that are formed to facilitate the development of a rural subdivision, mobile home park or other residential area are usually installed by contractors who have no long-term interest in operating a good public water supply. In those situations, the goal of the initial owner is to sell all properties and turn the public water supply over to the residents, who have no concept of the complex requirements that must be met to comply with drinking water regulations. Capacity Development Demonstrations for new systems are expected to deter the "short-term owner" problem, but will not always prevent non-compliance problems which stem from inadequate or poor management practices.

The Bureau of Water provides speakers to the public works associations, municipal officials associations, private water company meetings, and professional associations to which water suppliers belong in attempt to make these officials aware of the importance of the public drinking water system and the regulatory requirements which must be met. This practice will be continued. Field Operations Section personnel will continue to attend and participate in board meetings, public hearings and other water supply consumer outreach offerings to disseminate information and provide education.

Regulation Process Obstacles

The federal regulation process contributes significantly to short-term non-compliance. Many federal regulations overlap treatment areas or impact other treatment areas, yet there is no federal process to technically assess the overall impact of any single regulation upon all others as a part of the initial regulatory process. As long as this practice continues, public water suppliers and State regulators will have to choose among the regulations to determine how best to meet compliance parameters and produce a safe, affordable drinking water product for consumers.

Sound science is required by the Safe Drinking Water Act Amendments of 1996 to be the basis for all new federal contaminant parameters, treatment techniques and regulatory requirements. Provision was not, however, included to allow reassessment of previously promulgated regulations that can raise or

increase existing standards. This prohibition needs to be re-evaluated, taking into account the consumer health benefits, water treatment needs and costs of compliance for existing levels for the entire treatment process, and impacts of the existing standard upon treatment efficiency. It is possible that a combination of several "too stringent" standards could leave water supply consumers with a higher cost than needed, with few or no health benefits to show for the expenditure. This re-evaluation must be made for both existing and new regulations to ensure that the water quality achieved is the best possible for the most reasonable cost to consumers.

The timing of regulatory promulgation is also a problem. U. S. EPA often delays scheduled rule promulgation. History shows that many complex regulations are promulgated within months of each other, causing both regulatory agencies and water suppliers to race to read, understand, adopt and implement very different, complex technical programs simultaneously. This approach, combined with the failure to consider potential impacts of regulatory changes throughout the entire treatment and distribution system, frequently produces unanticipated water quality problems that are not immediately apparent. Changes made to water quality do not manifest themselves quickly or in a uniform time frame as water moves through the distribution system. For example, water chemistry and pipe coating reactions following implementation of Optimal Corrosion Control Treatment Techniques from the Lead and Copper rule (promulgated in accordance with the Safe Drinking Water Act Amendments of 1986) are just beginning to appear in public water distribution systems and consumer plumbing systems. Some of these reactions were anticipated or considered by experts in the field to be possible, but were not taken into account during the federal regulatory comment period or simply were not given much consideration. When several regulations are adopted or become effective within a short period of time, the independent cost estimates of impacts upon consumers as currently provided with rule packages are meaningless. The total impact must also be considered. Changes made to contaminants that are already regulated are sometimes implemented in a very short period of time. All changes, even those that might appear to be minor, require time for planning, funding and some expenditure of effort to integrate the change into existing operations. The recent trend of "early implementation" stretches State program resources even further when data collection and compliance requirements are imposed ahead of the statutory requirement for state implementation. Many of these early implementation needs are caused by delays of regulation promulgation with USEPA. Illinois agrees that USEPA should take the time needed for regulations to be technically correct and based upon sound science, but does not agree that early implementation is the best method of handling possible problems cause by court-established deadlines and environmental law suits.

The current cost-assessment process used by U. S. EPA does not provide a true picture of the cost of compliance for a regulation. In order to determine a more accurate cost assessment, U.S. EPA needs to first determine which supplies will be impacted by the regulation. Cost should then be assessed, using the consumer populations expected to be impacted. If the regulation will most affect supplies with a consumer population served of 100,000 persons, costs should be calculated upon that basis. If the regulation will primarily affect supplies with a population of 3,000 persons, costs should be calculated upon that basis. It would be most useful for USEPA to calculate the costs based upon each size range of systems, those serving small, medium, and large populations, with summary figures based upon size range, and a total cost estimate provided. The current practice is meaningless when applied in reality to existing public water supplies.

Factors Which Encourage Capacity Development

Dedication to Water Quality

Illinois drinking water professionals, for the most part, are sincerely concerned about their

responsibility to provide safe drinking water to consumers. The great majority of water suppliers and operators work diligently to provide a safe, aesthetically palatable drinking water. Most suppliers support operator education, public works manager education, and most officials attend a variety of state-wide meetings or conferences where drinking water issues are raised and discussed. While this attitude does not guarantee compliance, it does provide a sound basis for cooperation and compliance, even when a particular rule or regulation seems unsound or unnecessary.

Operator Certification

Illinois has had a strong mandatory operator certification program since 1965. All public water supplies are now required to employ at least one properly certified operator to be in responsible charge of the treatment and/or distribution facilities. A previous regulation that allowed very small systems to operate under the direction of a responsible person was repealed as a part of changes to the Operator Certification Law in July 1999. Operator education and certification are two key elements in facilitating both compliance and capacity demonstration. These two elements continue to serve as a foundation for water quality and regulatory compliance.

Water Supply Education

Professional water industry organizations and associations have, for many years, worked closely with the Illinois Environmental Protection Agency and the Illinois Department of Public Health to offer a variety of educational workshops, symposiums, and seminars each year, at a number of locations throughout the state, to keep those operators, officials, and engineers who work in the water supply industry abreast of technical and regulatory changes which impact operations. The availability of educational opportunities will serve as a positive factor as Illinois implements continuing education training units now needed for renewal of Water Supply Operator Certificates of Competency. A variety of educational opportunities for all those involved in the industry is essential in assisting water suppliers to develop and maintain capacity. Bureau of Water personnel will continue to support, encourage and participate in these efforts.

Capacity Development workshops were conducted in October/November, 1999, in cooperation with Illinois EPA Field Operations Section, Illinois Rural Water Association, and Illinois Section American Water Works Association Small Systems Committee. These workshops were conducted in both the southern and northern regions of the state, and were partially funded with international American Water Works Association Small System Compliance Assistance funds. Capacity Development was teamed with Emergency Operations in order to attract a mixture of compliant and non-compliant public water supplies. Significant Non-Complier suppliers received a special invitation to attend, and were offered a reduced registration fee. Approximately ten participated at each location. Capacity development elements continue to be included as an integral element in educational presentations, and the concept itself continues to be featured as a topic in many workshops and conferences.

Cross-Connection Control

An important element of consumer education and distribution water quality protection is the implementation of cross-connection control by each public water supplier. The millions of dollars spent on source water protection, water treatment, and distribution can literally be “down the drain” if user connections to the public water system are not properly protected from backflow, backsiphonage and aspiration. Illinois requires all public water supplies to have an active, enforceable cross-connection control program in place, and to maintain records to document that cross-connection control is being practiced throughout the public water supply distribution system. This requirement is

an investment in protection of consumer health and safety, and is important in maintaining capacity. Cross-connection control is also being addressed as an element of emergency management and on its own as a topic in the prescreening survey. The adoption of a formal program has been included in the engineering evaluation for many years, but the examination of actual documents that demonstrate that an active program is in place have not always been included in the evaluation. Records regarding the program present in each supply are being updated through this effort, and are incorporated into the on-going engineering evaluation process.

Permit Requirements for Construction and Operation

Illinois has maintained a strong water supply permit program for many years, under the Board of Health, prior to creation of the Illinois Environmental Protection Agency in 1970. This program provides an opportunity for oversight of not only new public water supply construction, but for any changes or modifications to source water, treatment or distribution facilities. The additional requirement of an operating permit before new or modified construction is put into operation documents that the project was properly disinfected, and serves notice to the Division of Public Water Supplies that a final inspection of project is due, if the inspection has not yet been made. Permit requirements allow the Division to assess each project to determine the ability of the water supply to operate in compliance during the permit process, and through construction inspection opportunities. Capacity demonstrations are reviewed as a required element of all permit applications for new public water supplies. Permit Section activities continue to be a high priority within the Division of Public Water Supplies.

State Revolving Loan Fund

Illinois continues to work to capitalize the Drinking Water Revolving Loan Fund to the greatest extent possible. The availability of loan funds to assist non-compliant water suppliers and those suppliers who may experience compliance problems as a result of new regulations in the future is an important asset to the capacity development process. Bonus points in the prioritization of loans to be granted can be awarded to systems that have completed capacity demonstrations. Regulations were carefully constructed to ensure that common elements in the capacity demonstration and the loan application could be interchanged to prevent duplication of effort on the part of water suppliers. Consideration is being given to allow use of loan funds to suppliers who need but do not yet have a capacity development demonstration as a part of a loan project to ensure continued compliance. The Infrastructure Funding Assistance Section will continues to look for opportunities to encourage capacity development for existing systems as a part of its activities, and to amend regulations where needed to keep consistency between the two programs.

Technical Assistance

Technical assistance has been a very high priority in the Division of Public Water Supplies for the past thirty-five years. The Division has long been committed to applying as many resources as possible toward education and assistance for water suppliers and operators. Reporting requirements, Needs Survey activities, formal enforcement participation, and other activities have slowly eroded the amount of time available to the Field Operations Section to provide technical assistance. Capacity Development is an opportunity to return the focus of operations to technical assistance.

In order to fully implement the capacity development program, the Bureau of Water works to secure additional Field Operations Section personnel. A primary responsibility of all Field staff is to be to work within the regional office to facilitate capacity development by tracking and following up on

complaints, reviewing new rules, reviewing operational visit information, and tracking water supplier response to evaluation report letters. This data will be used to help identify and prioritize water suppliers who will be required to complete Pre-Screening Surveys or Capacity Development Demonstrations. This staff person will also have routine responsibilities to conduct engineering evaluations, operational visits, and training. Reporting procedures to track capacity development implementation and progress have been implemented in the in the Springfield office, using the SDWIS system. Information regarding proposed and newly promulgated State and federal regulations is disseminated to Field and Permit Section staff through USEPA, AWWA and ASDWA – sponsored webcasts, as well as attendance at technical conferences and workshops. The integration of capacity development elements in all aspects of work within the region ensures that the capacity development program is an integral element of routine field operations activities.

The approach to existing systems is now a part of the routine Field Operations processes. FOS works capacity development demonstrations into technical assistance/compliance follow-up activities. Existing FOS staff implement Capacity Development screening and evaluation parameters in all public water supplies. The Division has not been able to acquire additional staff as hoped in all field offices. Staff have been added to two offices, but many vacant positions remain unfilled due to budget constraints. The Field Operations Section continues to justify the need for additional headcount, and to present those requests to upper management. As resources increase, the program continues to be implemented in contacts with all public water supplies through Field Operations staff that use engineering evaluation parameters that fully incorporate the elements of capacity development, coupled with the use of the prescreening survey for elements that need expansion. This universal incorporation into the Field Operations Section activities has proved to be more effective than attempting to separate out and isolate capacity demonstration elements into a separate program. These elements are sustained as an integral part of the program, and must work with the traditional elements of the engineering evaluation if the process is to work effectively and economically to ensure the safe operation of all public water supplies. Resources required to maintain the program will be compared with the operation and compliance improvements made by water supplies as a part of program evaluation. The effectiveness of the program, progress by water supplies in achieving and maintaining compliance, and evaluation of the program by all participants will be used to help fine-tune Capacity Development Program contents.

Engineering Evaluations (Sanitary Surveys)

Engineering evaluations will continue to provide the official record of operational compliance for public water supplies. Capacity screening documents and demonstrations will become a routine part of preparation for an engineering evaluation. Through the public interaction and information process used to develop the Illinois Strategy, water suppliers responsible for all sizes of water treatment and distribution facilities have expressed a desire to have a thorough self-evaluation document that can be used internally each year to assist them in remaining in compliance. Many organizations have prepared self-evaluation documents, including AWWA, the Rural Water Association, and even USEPA. Information on these resources is provided to all suppliers who want to complete a self-evaluation. Two documents prepared by USEPA, *"Taking Stock of Your Water System"* and *"Asset Management: A Handbook for Small Water Systems"* are frequently recommended. These basic tools can be used by any size of water supplier to formulate a clear strategy to evaluate their operation and achieve capacity development within their water supply.

MEASUREMENT OF BASELINE

Illinois EPA will use a combination of compliance with regulations plus a factor of improved

operation to measure the success of the program. As engineering evaluations are completed, an assessment of recurrent violations, reductions in operational problems, ability to handle problems and emergencies, and the quality of consumer confidence reporting and follow-up will be used to assess improvement in capacity to operate in compliance. Monitoring and reporting violations will also be included as a part of the assessment of program success. This information is tracked in SDWIS.

An example of the current Pre-Screening Survey (copy attached). This survey is more detailed than the original one-page survey, and is an effective tool in assessing capacity status for each public water supply.

SRF bonus points for project prioritization are available to suppliers who complete Capacity Development Demonstrations and provide those demonstrations as a part of the Loan package. Completion of Capacity Demonstrations can be included as a requested funding element in loan packages where no demonstration exists, and should be noted as a separate cost item in the loan request.

IDENTIFICATION OF PERSONS WITH INPUT TO THE CAPACITY STRATEGY

Illinois EPA Bureau of Water (BOW) sought to obtain as much input into the development of the original Capacity Development Strategy for Existing Systems as practical within the short time frame available. In order to achieve the goal of seeking input from all stakeholders, the Division of Public Water Supplies coordinated with the Illinois Section American Water Works Association (ISAWWA) Small Systems Committee to formulate an outreach plan. The ISAWWA Small Systems Committee is comprised of small system operators, operator association officers and members, water educational institution staff, Illinois EPA staff, consulting engineers, Illinois Rural Water Association staff, and a marketing representative. The consensus of the FOS staff and Small Systems Committee was to evaluate existing communication mechanisms already in place, and available to the BOW. One existing advisory group consisted of statewide Groundwater Protection Planning and Education Committees. These groups are comprised of stakeholders from the general public, environmental advocacy groups, the agricultural community, water supply operators and officials, water industry organizations and associations, and local, state and federal governmental agencies. As an added benefit, these group members have an interest and commitment to drinking water issues, and are somewhat educated on all aspects of water supply programs in Illinois. The Groundwater Protection Planning and Education Committees were approached and asked to participate in the development of the Capacity Development Program for Illinois. Presentations were made to each of the five committees regarding the contents of the proposed regulations for new systems, and the basic approach that would be used in the Strategy for Existing Systems. All committees spent meeting time discussing the programs, and provided some comments for inclusion as a part of each discussion. These comments were used as the Strategy document evolved. Changes to the initial Strategy are based upon comments and experiences from Field Operations staff, Environmental Resources Training Center instructors, Illinois Rural Water Association training staff, water supply officials and operators, and other professional organization members who help to support capacity development efforts. These comments are made during and after workshops, seminars, conferences, and planning and assessment meetings.

Presentations which included an outline of the Capacity Development Program for both new and existing systems were made initially at two ISAWWA Small Systems Conferences, several ISAWWA regulatory workshops, the Illinois Potable Water Supply Operators Association Annual Conference, several Illinois Rural Water Association meetings, and at local operator association meetings. Comments and questions received during or following these presentations were also incorporated into

the Strategy, as the document continued to grow and develop. Capacity demonstration elements are included in nearly all educational activities held in Illinois. Comments pertinent to the process and progress of capacity demonstration in Illinois are incorporated when received by participants of these activities.

In order to reach all interested parties not already aware of the initial Capacity Development Program, the topic was included in the annual Bureau of Water Program Plan Hearing in August 1999. Notice of this annual hearing is provided to the general public through official notification in various statewide official publications, on the Illinois EPA website, and through direct mail to citizen and environmental groups, industrial, institutional and commercial stakeholders, and to the water industry as a whole. Each Hearing Notice included a brief description of the program and provided interested persons with the name and address of a contact person to whom inquiries or questions could be directed. Attendees were invited to provide oral comment at the hearing, or to provide written comment following the meeting. Only two general questions were asked following the presentation. No written comment was provided. Response to questions was documented in the hearing transcript available to attendees or any others, upon request.

The most valuable source of input to the initial Capacity Development Strategy was generated as a feedback from a somewhat unexpected source -- the original two Emergency Response/Capacity Development Demonstration workshops, partially funded by an allocation from the American Water Works Association compliance assistance fund. These workshops were scheduled as two-day sessions. The first day was primarily devoted to Emergency Response materials in the morning and early afternoon, with Capacity Development introduced in the afternoon. An evening session on Capacity Development was held to provide instruction in use of the Small Utilities Rates and Finances personal computer program developed by the American Water Works Association, and to help these utilities input actual data into the program or discuss individual problems. During the course of the evening session, considerable discussion developed. Many participants met again for breakfast. The remainder of the Capacity Development program concluded in the morning. As a result of the evening session and following day programs, individual water supply problems presented at the evening session were discussed, and solutions offered through a combined instructor-peer effort. The need for a self-evaluation tool was one item identified through this process. The useful aspects of peer evaluation and technical assistance were also demonstrated to participants. These elements are incorporated into the Capacity Development Strategy, and into projects sponsored by the ISAWWA Small Systems Committee. Illinois continues to find the linking of emergency management and capacity development as an important tool to help water supply owners, officials and operators understand that these program elements must be viewed as a part of the overall ongoing operation of their own public water supply. This integrated concept reinforces the goal of both capacity development and emergency management becoming a part of daily on-going operations for each Illinois public water supply.

Two additional elements of small system non-compliance became apparent as a part of the initial process. Although 122 Priority One systems received letters of invitation with a cost reduction, only ten targeted systems participated. All ten officials/operators in attendance were relatively new to the public water supply industry -- these persons became involved with the operation of the public water supply due to recognition of the need to provide safe drinking water to consumers. Some were new owners of mobile home parks, some were new residents in subdivision supplies, and some were residents of subdivision supplies that were previously managed by developers or remotely residing residents. In all cases, very little was known about the operation or past problems of the public water supply, and virtually nothing was known about the process of learning how to operate in compliance. This experience identified a need to somehow better communicate with very small system consumers

to ensure that an awareness of the operations and problems of the system has been clearly communicated to consumers. Observation of the efficacy of the Consumer Confidence Report is one method of communication that will be evaluated. Other evaluation will be difficult, unless formal enforcement is underway, as no clear communication channel exists with consumers unless a specific complaint or question is received, and resources to support additional communication are not readily available.

A certain number of small systems that are unwilling or unable to operate in compliance remains. As Illinois has implemented the strategy for existing systems, this number has decreased steadily through the negotiation of compliance agreements and the provision of technical assistance. All remaining non-compliant systems continue to receive technical assistance and formal enforcement attention according to Agency compliance management procedures.

NON-COMMUNITY PUBLIC WATER SUPPLY CAPACITY DEVELOPMENT DEMONSTRATION FOR EXISTING NON-TRANSIENT SYSTEMS

INTRODUCTION

Non-community public water supplies, for the most part, are not in the business of providing drinking water to a rate-paying consumer base. The water supply is usually a supporting or ancillary function of the business or entity, and is generally used to serve the workers or clientele of the business or entity. Examples of these supplies are schools, camps, industries, or restaurants, who must provide a safe supply of drinking water as a part of their primary activities. The very nature of these non-community public water supplies makes application of the Capacity Development Program quite different than that proposed for community public water supply systems.

In most cases, no specific resources are devoted to the operation of the water supply -- the resources needed are part of the budget and responsibility of the branch of the business which operates the supply. For example, the director of the physical plant may be selected to oversee the operation of the water supply at a school or camp; the maintenance superintendent may oversee the operation of the water supply at an industry or institution; and the owner of the restaurant may oversee the operation of the water supply at a restaurant or gas station. The Illinois Department of Public Health has little or no authority to require nor expertise to review submission of managerial or financial information for a business entity. Problems and violations are, however, more readily addressed through existing mechanisms. While Capacity Development Demonstrations will be used as an additional tool in the non-community water supply program, it is not anticipated that there will be a significant impact upon overall compliance as a result of the new program effort.

PRIORITIZING EXISTING SUPPLIES WHICH MUST DEMONSTRATE CAPACITY

The Illinois Department of Public Health (IDPH) utilizes a combination of coordination with regional offices and contractual agreements with local health departments to conduct the non-community public water supply program in Illinois. Coordination between all available resources of the IDPH is optimized to ensure that existing resources are most effectively used to provide assistance, instruction and oversight to non-community public water supplies. Both informal and formal enforcement mechanisms are used to maintain compliance. Surface water supplies and supplies that are licensed by the IDPH are visited and receive a sanitary survey each year. All other supplies receive a sanitary

survey every two years. This schedule of contact provides an opportunity for the IDPH to conduct an informal review of many capacity demonstration elements as a part of routine evaluations.

Problems do exist, at times. The limited resources of the IDPH are concentrated upon supplies and problems that have the most immediate impact upon public health. Priorities have been established to address non-community public water supplies.

Priority One Supplies

Those supplies that have MCL violations and/or significant constructional or operational deficiencies will be initial targets for capacity demonstrations. Existing regulations provide for the IDPH to require reports to ensure compliance will be used to implement the need for a demonstration. These supplies will also be subject to formal enforcement, with a Capacity Demonstration required as an element of any compliance agreement.

Priority Two Supplies

Those supplies that have accrued repeat monitoring violations will be targeted as a second priority. IDPH regional office staff, or local health department staff, review sampling requirements during the annual or biennial sanitary survey. These field staff also assist in the actual collection of samples when necessary. Reminder letters are sent each quarter to non-community public water supply operators and officials, advising them of future sampling dates. IDPH laboratories provide chemical monitoring for schools at no cost. These efforts have resulted in high monitoring compliance rates. Capacity demonstration information will be included in the monitoring portion of sanitary surveys for these supplies, and may be a part of formal enforcement actions.

IDPH expects that the implementation of SDWIS in the past several months will improve the ability of central office staff to assist regional and local health department inspectors in recognizing non-compliance problems and trends in this priority category. Central office staff will also provide capacity development assistance whenever necessary.

Priority Three Supplies

Supplies with minor operational or managerial deficiencies, such as changes in ownership or late sample submission, will be addressed as a third priority. These supplies will be identified during sanitary surveys and as a result of periodic data submission reviews.

USE OF THE SDWA TO ENSURE COMPLIANCE

The IDPH has traditionally sought compliance through cooperation and informal meetings and negotiations. In a small percentage of cases, non-community public water supply owners are reluctant to voluntarily come into compliance. Under such circumstances, provisions of the Illinois Groundwater Protection Act, 415 ILCS 55/9, are used as the authority for the IDPH to develop and enforce regulations to require compliance. The Illinois Drinking Water Systems Code, which adopts by reference the requirements of the Safe Drinking Water Act, will be used as a part of formal enforcement proceedings, when required. The IDPH has adopted an internal enforcement process through program policies that requires notification of the nature of a violation, and provides that failure to comply within a specified time period will escalate the violation to formal enforcement action.

FACTORS THAT IMPAIR CAPACITY DEVELOPMENT

Water Supply Operation is Not a Primary Activity of Non-community Public Water Supplies

The nature of a non-community water supply, first and foremost, is a business or school. Any water provided is for the exclusive use of the employees or students, and, in some cases, to provide process water for the operation of the business. Routine requirements of the drinking water program are not always an ongoing concern to the management of the facility. For example, the concept that routine samples must be submitted for a multitude of chemical analyses, most of which are never detected, is somewhat puzzling to the owner; consequently, sampling may be somewhat lax. IDPH regional office or local health department personnel communicate the requirements and the need for compliance with drinking water requirements during all visits and through all correspondence.

Personnel Changes

Frequent changes in on-site operational personnel pose an additional obstacle to non-community public water supply compliance. An ongoing education and re-education process is essential. The IDPH strives to provide this information through regional office or local health department contacts whenever changes in personnel or management/ ownership are reported.

Management Structure

Management of a non-community public water supply, in many cases, is an owner/operator type of arrangement where there is no formal chain of command. In this situation, the same individual who orders supplies also keeps the books, serves customers, and performs all operational duties. When this one-man operation experiences illness, goes on vacation, or is not available, problems may develop within the non-community water supply. IDPH regional personnel or local health department personnel work closely with these personnel to educate and assist with water supply compliance.

FACTORS WHICH ENCOURAGE CAPACITY DEVELOPMENT

The IDPH has begun an operator certification program for all non-transient, non-community public water supply operators. Existing system operators are being grand-parented into certified operators. Before January 1, 2003, all grand-parented operators will be required to attend and successfully complete an operator training course, which is presently being developed by the Water Quality Association. Once operators become certified, re-certification will be required every three years. This process will require participation and successful completion in an operator training course sponsored by IDPH. IDPH expects this program to improve operations within non-community public water supplies.

Permit Requirements

All new non-transient non-community public water supplies must submit a permit application to the IDPH prior to construction. Review is conducted by IDPH personnel to ensure that technical construction meets all IDPH requirements. Financial review is made to ensure that sampling costs and routine maintenance costs will be properly funded by the owner/official custodian of the supply. IDPH will use this review to emphasize the importance of the provision of safe drinking water to consumers, and will begin the regulation education process at that time.

Technical Assistance During Sanitary Surveys

Technical assistance is provided on an individual basis during each routine sanitary survey. At the time of the survey, IDPH regional staff or local health department staff review all safe drinking water requirements including sampling, treatment techniques, operational procedures, and specific concerns of the facility. Improvements in operation can usually be seen following these visits, until personnel change or priorities within the business are altered.

BASELINE MEASUREMENT

The only meaningful measurement of improvement will be the reduction in MCL violations, a reduction in monitoring violations, timely submission of sampling data, and employment of reliable certified operators. Progress will be based upon existing compliance information, with compliance for new regulations assessed independently.

IDENTIFICATION OF PERSONS WITH INPUT TO THE CAPACITY STRATEGY

The IDPH established an advisory committee to deal with both Capacity Development and Operator Certification requirements of the SDWA Amendments of 1996, and to advise the IDPH on oversight of the drinking water program. This committee is called the Non-Community Public Water Supply Stakeholder Committee. Members are made up representatives from Illinois EPA Operator Certification program, two IDPH technical staff from the water supply program, one local health department representative, one non-community system operator responsible for nine school district water supplies, two individuals responsible for operations from very small non-community public water supply systems and one citizen advisor position.

This committee reviewed the capacity development rules for new systems, operator certification rules for all non-transient systems, and the Strategy for Capacity Development for Existing Non-Transient Systems. All input provided was included as a part of the rule development process.

Rev.2/9-23-2005/lab/rev8-2005 capstrategyexisting

CROSS CONNECTION CONTROL PROGRAM

All community water supplies are required to have a program to protect the water system from backflow, which can occur whenever the water system is physically connected to a potential source of contamination. To provide this protection, the water supply must have (1) a way of locating cross connections; (2) legal authority to require its customers to correct or isolate cross connections that may be present, and: (3) a program to ensure that backflow prevention devices are properly installed and maintained.

	CROSS CONNECTION CONTROL PROGRAM EVALUATION	YES	NO
1	Does your organization have an ordinance, rule, or other written regulations that prohibit residents and customers from directly connecting the public water system to a source of contamination?	☐	☐
2	What LOCAL Agency, Office or person is responsible for ensuring residents and customers comply with plumbing regulations?		
3	Does the above person or organization issue building / construction permits for residents/ customers wishing to install or modify plumbing installations?	☐	☐
4	Does the person or organization identified in #2 above maintain a list of residents / customers having private wells, irrigation systems, fire suppression systems, boilers or other ›high risk‹ plumbing installations?	☐	☐
5	Is the list referenced above being updated at least every two years?	☐	☐
6	Does the person or organization identified in #2 require backflow prevention devices to be tested at least once a year?	☐	☐
7	Does the person or organization identified in #2 have authority to issue a financial penalty (or discontinuation of service) if backflow prevention devices are not installed or tested when required?	☐	☐
8	Where are records associated with the Cross Connection Control Program kept?		
		☐	☐
		☐	☐
		☐	☐
		☐	☐

I verify that the above information is true and accurate, and that information marked ›yes‹ is readily available for review by Illinois Environmental Protection Agency Staff during an evaluation, visit, or meeting

Signature:_____ **Date** _____

_____

Print or Type Name of Signator and Title (Mayor, Responsible Water System Official, Owner, etc)
Public Water Supply Name: Facility Number:

PLEASE RETURN THIS FORM TO:

IEPA,
595 S. STATE STREET
ELGIN, IL., 60123

TECHNICAL CAPACITY

This worksheet should be completed by a member of your organization having responsibility for ensuring that the public water system complies with current and future regulations. This is usually the Director of Public Works or Certified Public Water Supply Operator.

Technical Capacity Assessment	YES	NO	N/A
Do you maintain a Daily log of water production, chemical use, flow rates, and field test results?	☐	☐	
Do you know how much water you pump on an average day? _____ (☐ MGD) (☐ gpd)	☐	☐	
Do you know how much water you pump on a peak day? _____ (☐ MGD) (☐ gpd)	☐	☐	
What is your Water Production Capacity? _____(☐ MGD) (☐ gpd)			
What is the limiting factor for Water Production Capacity? (What ONE component of your existing water system prevents you from producing more FINISHED water?)			
Does your organization have any water supply wells that have been inoperable for more than 90 days?	☐	☐	
Is your production capacity higher than your Maximum Daily Demand (peak day) with your largest unit out of service?	☐	☐	
What is the production capacity of your largest unit? _____(☐ MGD) (☐ gpd)			
Do you routinely monitor static and pumping water levels in your water supply wells?	☐	☐	
Do you expect system demand to INCREASE, DECREASE or remain STABLE over the next 10 years?			
Does your organization have an operations and maintenance manual to ensure continued operation, maintenance and monitoring of the water system in the event of key personnel changes?	☐	☐	
Are existing standby / emergency power equipment, controls and switches tested or exercised routinely under load conditions, for at least 30 minutes at a time, or according to manufacturer recommendations?	☐	☐	
Exercise Frequency ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annual ☐ Other			
Does your water system have the ability to maintain uninterrupted water service for 24 hours without electrical power? (i.e., elevated storage or emergency power)	☐	☐	
Are storage tanks inspected at least every 5 years by a qualified tank contractor for evidence of debris, corrosion and structural weakness?	☐	☐	☐
Are hydrants routinely flushed, tested and maintained?	☐	☐	☐
Are the locations of all valves in the distribution system precisely known?	☐	☐	☐
Are all valves periodically exercised and maintained?	☐	☐	☐
Are histories, locations, size and type of mains and valves detailed on records kept in a secure area?	☐	☐	
Are meter pits and curb stops located, unobstructed and accessible?	☐	☐	

Technical Capacity Assessment	YES	NO	N/A
Are there suitable right-of-way and easements provided to the water system for expansion, maintenance and replacement of water mains and services?	☐	☐	
Is there sufficient earth cover to protect water mains and services from frost damage or heavy loads, if driven over?	☐	☐	
Are all customers and water sources metered?	☐	☐	
Is there a meter calibration and replacement program in place?	☐	☐	☐
Do you have a routine leak detection and repair program?	☐	☐	
What is your current (approximate) water loss?			
Does your organization have a system for assuring adequate inventory of essential spare parts and backup equipment?	☐	☐	
Do you have an Illinois EPA approved plan for bacteriological monitoring?	☐	☐	
Do you know how to collect **REPEAT** samples when coliform bacteria is detected at a sample tap?	☐	☐	
Does your public water system obtain Construction Permits from the IEPA before installing new water main or water system upgrades and improvements?	☐	☐	
Does your organization have a program or procedure to assure construction conforms to plans and specifications outlined in the Construction Permit?	☐	☐	
Are Operating Permits obtained prior to placing water system improvements into service?	☐	☐	
Is there a contingency for making emergency connections to neighboring water systems, and do you know they will work if needed?	☐	☐	
	☐	☐	
	☐	☐	

I verify that the above information is true and accurate, and that information marked Ayes@ is readily available for review by Illinois Environmental Protection Agency Staff during an evaluation, visit, or meeting

Signature:_____ **(Date)** _____

_____

Print or Type Name of Signator and Title (Mayor, Responsible Water System Official, Owner, etc)

Public Water Supply Name: Facility Number:

MANAGERIAL CAPACITY

This worksheet should be completed by a member of your organization having knowledge of the water system's ownership, organizational structure, staffing, and job responsibilities.

Managerial Capacity Assessment	YES	NO
Is a properly certified operator in responsible charge of the treatment plant and distribution system, and the appropriate notification form on file with the Illinois EPA?	☐	☐
Does your organization have an up-to-date protocol or procedure to ensure that properly qualified personnel are available **24/7** to ensure safe and reliable operation of the water system?	☐	☐
Does your organization chart identify who is responsible for issuing public notices, boil advisories, media contacts, consumer relations, ordering supplies, etc.?	☐	☐
Are contingency plans in place for unanticipated loss of key personnel (Certified Operator)?	☐	☐
Does your water system have a written operations and maintenance plan? (For use when Certified Operator or other operational staff are unavailable)	☐	☐
Do you maintain an up-to-date list of Illinois EPA certified laboratories that can provide emergency analyses?	☐	☐
Do you maintain accurate records to document compliance with IEPA monitoring requirements?	☐	☐
Do you have an oversight program to ensure that operating records are complete, accurate and properly maintained?	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐

I verify that the above information is true and accurate, and that information marked <u>yes</u> is readily available for review by Illinois Environmental Protection Agency Staff during an evaluation, visit, or meeting

Signature:_____**(Date)** _____

_____

Print or Type Name of Signator and Title (Mayor, Responsible Water System Official, Owner, etc)

Public Water Supply Name: Facility Number:

PLEASE RETURN THIS FORM TO:

IEPA,
595 S. STATE STREET
ELGIN, IL., 60123

FINANCIAL CAPACITY ASSESSMENT WORKSHEET

This worksheet should be completed by a member of your organization having knowledge of the water system=s finances and financial management.

Financial Capacity Assessment	YES	NO
Does your organization have an annual budget for operating and maintaining the water system?	☐	☐
Does your budget provide for annual upgrades and improvements?	☐	☐
Do you regularly review your water rates?	☐	☐
Does your organization have a regulation, ordinance or other legal document that specifies water rates, service connection fees, meter installations, tampering, maintenance responsibilities and termination or discontinuation of water service?	☐	☐
Does your water system generate sufficient revenue to meet estimated expenses during the current and forecasted budget years?	☐	☐
Are reserve funds in place to provide for emergency repairs?	☐	☐
Can your organization cover the costs of an emergency or failure of its most vulnerable system component?	☐	☐
Does your organization have a written 5-year Capital Improvement Plan for major water system improvements?	☐	☐
Does your long-term planning incorporate analysis of alternative strategies that may offer cost savings to customers, such as consolidation with neighboring water systems, or sharing of operations and management expenses with other nearby water systems?	☐	☐
What is the approximate value of the water system=s outstanding debt?		

I verify that the above information is true and accurate, and that information marked <u>yes</u> is readily available for review by Illinois Environmental Protection Agency Staff during an evaluation, visit, or meeting

Signature:_____ (Date) _____

_____

Print or Type Name of Signator and Title (Mayor, Responsible Water System Official, Owner, etc)

Public Water Supply Name: ID:

PLEASE RETURN THIS FORM TO:

IEPA,
595 S. STATE STREET
ELGIN, IL., 60123

EMERGENCY PREPAREDNESS ASSESSMENT

This worksheet should be completed by a member of your organization having knowledge of the water system=s ability to respond to unexpected problems.

EMERGENCY PREPAREDNESS WORKSHEET	YES	NO
Has the vulnerability of each source, treatment plant, pump station, storage tank and distribution system been evaluated?	☐	☐
Is the above "Vulnerability Assessment' being repeated at least once a year?	☐	☐
Have measures been taken to improve the protection of vulnerable components?	☐	☐
Are all water storage facilities checked routinely for sanitary defects or vandalism?	☐	☐
Is a copy of important phone numbers and immediate response information available in at least two locations to ensure that documents can be accessed during a natural disaster, vandalism, or terrorism event?	☐	☐
Is an emergency plan in place to provide potable water in the event of natural disaster or major equipment or system failure?	☐	☐
Is there a contingency for making emergency connections to neighboring water systems, and do you know they will work if needed?	☐	☐
Do you have a maintenance program for standby / emergency power units?	☐	☐
Do you have an emergency procedure for contacting your customers (telephone tree, local radio, TV).	☐	☐
Is someone responsible for emergency operations, for communications with State regulators, for customer relations, for media relations?	☐	☐
Does your organization have a clear chain-of-command protocol for emergency actions?	☐	☐
Does everyone associated with the water utility understand the risks and safety measures involved in handling water treatment chemicals?	☐	☐
Does everyone associated with the water utility know what they are to do in the event of contamination from a toxic or hazardous waste spill in your source water or a main break or tank failure?	☐	☐

I verify that the above information is true and accurate, and that information marked Ayes@ is readily available for review by Illinois Environmental Protection Agency Staff during an evaluation, visit, or meeting

Signature:_____ (Date) _____
Print or Type Name of Signator and Title (Mayor, Responsible Water System Official, Owner, etc)
Public Water Supply
Name:_____ID:_____

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