REPORT TO THE GOVERNOR ON
IOWA'S CAPACITY DEVELOPMENT PROGRAM

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
WATER SUPPLY PROGRAM

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EXECUTIVE SUMMARY

For the past eleven years, the Iowa Department of Natural Resources (IDNR) has worked to implement a strategy to assist public water systems in developing their technical, financial and managerial capacity as required by the federal Safe Drinking Water Act (SDWA) amendments of 1996. Water systems with capacity are able to produce water that meets all SDWA requirements and provide it to consumers for a reasonable cost, while ensuring they are planning for future infrastructure replacement and new regulations. Beginning in 2002, IDNR submitted its first report of progress in implementing the strategy and its effectiveness in improving the capabilities of water systems as required by the SDWA, which requires submittal of these reports to the governors of each state on a three year interval.

The department developed its strategy with the help of a stakeholder group called the Viability Assessment Advisory Group and this report includes their recommendations and the elements chosen for implementation along with a summary of IDNR activities with respect to each element. Progress has occurred with respect to some of the elements, while others have been addressed to a more limited extent.

Overall public water system compliance rates remain high and the technical, financial and managerial capabilities of public water systems are improving with the assistance of Drinking Water State Revolving Fund loans, third-party technical assistance, and IDNR staff efforts. The Department will continue to implement the strategy with the ultimate goal of reducing the need for enforcement action and providing overall improvement in the safety of drinking water for the citizens of Iowa.

OVERVIEW

In 1996, Congress re-authorized and amended the Safe Drinking Water Act (SDWA). One of the amendments added a new section entitled "Capacity Development Strategy." Capacity is generally defined as a system's ability to provide safe, high-quality drinking water to its customers at a reasonable cost for the foreseeable future, and is referred to as "viability" in the Code of Iowa.

This new section of the SDWA, among other things, required each state to develop and implement a strategy by August of 2000 to assist its public water systems in acquiring and maintaining technical, managerial, and financial capacity. Failure to do so would have resulted in a withholding of up to 20% of federal grant funds for the Drinking Water State Revolving Fund (DWSRF) program. The SDWA required that the state consider, solicit public comment on, and include as appropriate five different elements in developing its strategy. The elements considered were:

- Methods or criteria to prioritize systems [§1420(c)(2)(A)]
- Factors that encourage or impair capacity development [§1420(c)(2)(B)]
- How the State will use the authority and resources of the SDWA [§1420(c)(2)(C)]
- How the State will establish the baseline and measure improvements [§1420(c)(2)(D)]
- Procedures to identify interested persons [§1420(c)(2)(E)]

The SDWA amendments also require each state, within two years of adopting a capacity development strategy and every three years thereafter, to submit to its Governor a report on the efficacy of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the state. The report must also be made available to the public. The intent of this report is to fulfill the SDWA's statutory requirement.

DEVELOPMENT AND IMPLEMENTATION OF IOWA'S CAPACITY DEVELOPMENT STRATEGY

During 1999 and 2000, IDNR convened a group of stakeholders collectively referred to as the Viability Assessment Advisory Group for a series of ten meetings to discuss the five elements requiring consideration prior to development of the state's capacity development strategy. This group produced a document entitled, "Report of Findings on Improving the Technical, Financial and Managerial Capacity of Iowa's Public Water Systems," available on the IDNR website at http://www.iowadnr.gov/portals/idnr/uploads/water/wse/report_of_findings.pdf?amp;tabid=1264.

The Report of Findings was made available for public comment in October and November of 1999. The Department notified every public water system of its availability, posted it on the IDNR website, issued a press release highlighting its availability, and held three public meetings across the state to solicit comments. Comments received were placed in an appendix to the Report of Findings and were utilized during preparation of the Capacity Development Strategy. The Report contained eight recommendations for use in the capacity development strategy.

The IDNR reviewed the findings, recommendations, and public comments to determine which recommendations were feasible and would assist Iowa public water systems in improving their technical, managerial and financial skills and enhance their capacity. The resulting recommendations were then incorporated in the Capacity Development Strategy. The strategy was submitted for EPA review in August of 2000 and was approved in early 2001; it was also reviewed and adopted by the Iowa Environmental Protection Commission at that time.

Implementation of the strategy has been ongoing over the past eleven years and a report to the governor was developed in 2002 and again in 2005 to assess the efficacy of the strategy during the first five years of implementation. The strategy is a dynamic document that may be modified as the department finds it necessary to make changes to achieve capacity development goals. As a result, the Viability Assessment Advisory Group was reconvened in 2005 when IDNR felt it was time to modify the strategy to include activities that were not part of the strategy but were improving the capacity of systems, and to eliminate activities that were not likely to be implemented. The end result of the 2005 meeting was that the strategy should focus on water board/council member training during the next three year period. In 2010, the strategy was modified to include the Area Wide Optimization Program as a means of prioritizing surface water systems and targeting technical assistance. The amended strategy is available on the IDNR website at http://www.iowadnr.gov/portals/idnr/uploads/water/wse/cap_dev_strategy.pdf?amp;tabid=1264.

In 2008, the department asked the Advisory Group to come back together to review the accomplishments of the past three years and to look at potential improvements or additions to the strategy; no major revisions resulted from this meeting.

DISCUSSION OF STRATEGY ELEMENTS

In preparing for this report, progress made toward improving the technical, financial and managerial capabilities of Iowa water systems was considered along with barriers to the process. Each of the elements listed in the amended strategy was reviewed and the implementation progress assessed. The feasibility of each element was also reviewed in light of the activities undertaken within the last three years.

During past stakeholder meetings, it was noted that the limited resources of the water supply program have prevented the state from reaching all of its capacity development goals. When the original strategy was written in 2000, several of the stakeholders' suggestions were not adopted because of resource constraints. In the years that followed, the state experienced a budget shortfall and the amount of funding provided by the legislature to the water supply program decreased significantly. Most of the Public Water System Supervision grant was re-directed to other priority areas within the department so that the Water Supply program area now relies almost completely on the DWSRF set-asides for funding. Recent years have seen the implementation of the 2009 American Recovery and Investment Act (IDNR facilitated projects that allowed the state to put $60M into water supply infrastructure and jobs) and a 30% cutback in engineering staff, but despite these challenges the IDNR has continued to work toward improvement in the implementation of its capacity development program.

Following is a summary of each strategy element and the activities that have occurred to date.

RECOMMENDATION 1: COLLECT ADDITIONAL TECHNICAL, FINANCIAL, AND MANAGERIAL INFORMATION FROM PUBLIC WATER SYSTEMS

REASONING: The Department currently collects information from water systems once every three to five years via inspections called "sanitary surveys." The primary purpose of the survey is to evaluate the technical aspects of the system. Because of the federal requirement to improve the financial and managerial skills of water systems as well as the technical aspects, it was decided that one of the barriers to capacity development was the lack of financial and managerial data related to water system operations.

ELEMENT 1: Develop and use an enhanced sanitary survey to collect technical, financial, and managerial information.

- The IDNR developed and began using an enhanced sanitary survey during 2005. The enhanced sanitary survey included questions about the managerial and financial aspects of operating a water system, in addition to the technical issues traditionally discussed during surveys. The program was updated in 2007 and completely rebuilt in 2009. Enhancements allow for the extraction of real time data from the drinking water database of record (SDWIS) to populate the survey with existing information, eliminating data entry. In the future, the plan is to use the program to push data from the current survey back to SDWIS, but additional modifications will be required before this can be implemented. The collection of financial and managerial data is currently required for all systems (surface water and ground water) as part of the eight elements of a sanitary survey, with the exception of transient non-community surveys being done via contract by the counties. All surveys will include these questions by December of 2012.

ELEMENT 2: Department personnel would attend the water board or city council meeting to go over the sanitary survey report, answer questions, and encourage long-range planning.

- Field office inspectors attend board and city council meetings upon request to discuss sanitary survey results and to encourage planning. Water operators often request the presence of field office staff to explain the inspection reports to their board or council members so that the governing body understands the need for capital improvements. IDNR has been willing to accommodate these requests within time and resource constraints.

ELEMENT 3: Develop a "scorecard" approach to evaluating enhanced sanitary survey results. Stakeholders felt that specific scores in the areas of technical, financial and managerial capacity would provide the water system operators with a relative idea of how they were performing, especially if the scores of the neighboring systems were made available.

- In 2005, stakeholders proposed the idea of a technical, financial, and managerial (TMF) scorecard. The idea was to pull questions out of the sanitary survey that indicated viability, give a relative value to each of questions, and come up with a TMF score for

each water system. The structure of the sanitary survey database made implementation of the scorecard very difficult, and when the Advisory Group met in 2008 it was decided that since the program upgrade was already in its initial stages, the use of the scorecard concept should be postponed until the database was fully rebuilt. An idea presented at the stakeholder meeting was to tie the scorecard to the Iowa "Great Places" initiative so that communities with excellent drinking water would be recognized as great places to visit, live, or locate a business. The group also felt that the score should be presented or mailed to the city clerk, mayor or city council or water board either during or at the end of the sanitary survey to involve them in the survey process and to apprise them of how their system scores relative to other communities in the area.

This element has not resulted in a scorecard at this time, but it is being developed into a method of prioritizing systems for viability technical assistance as described here. The database upgrade was completed in August of 2009 and at approximately the same time the department began working on a risk assessment tool for surface water systems as part of a pilot project that was being conducted with USEPA. Appropriate questions from the Electronic Sanitary Survey (ESS) to assess the viability of a system were selected and a query was run to rank the systems in order of least viable to most viable. This list was then checked with a senior staff member in each field office to determine whether the list matched up with the "gut feeling" of the field staff as far as which systems in each region were the riskiest. Each time the risk ranking was reviewed, modifications were made to the question list to try to calibrate the list to the actual risk level of the systems.

Scores could be assigned to each system using this query and these could be used in the manner originally intended by Advisory Group, as a means of comparison among systems. More importantly, this provides the department with a method prioritizing system in the order of risk so that technical assistance can be targeted to the systems most in need of assistance. The assistance can be provided in specific areas, depending on which questions pointed to deficiencies. For example, if a system has not reviewed their water rates for several years, the department can provide assistance in performing a rate review though a contacted technical assistance provider.

As part of the ongoing pilot project with USEPA, department staff plans to analyze the deficiencies that are being found with respect to technical, financial, and managerial aspects of the system to look for common issues that could be addressed through training. As the pilot moves forward, it is hoped that training for managerial deficiencies can be developed since there are not a lot of tools available to assist systems with managerial problems at this time.

This risk assessment tool could still be used to provide systems with an idea of how they rank relative to other systems as envisioned by the Advisory Group, but this is not planned for the near future.

RECOMMENDATION 2: IMPROVE THE KNOWLEDGE OF PUBLIC WATER SYSTEM OPERATORS REGARDING REGULATIONS AND IMPROVE THE KNOWLEDGE OF THE PUBLIC WITH REGARD TO THE PRODUCTION OF DRINKING WATER

REASONING: Stakeholders identified the lack of knowledge about drinking water protection rules among operation and management personnel as a significant barrier to capacity. Many times the language and format used for rules and regulations are difficult for the operators to understand. The group felt that operators should be provided with additional information when current rules are modified or new rules are proposed. On the management side, water board and city council members are usually responsible for the financing and management of water systems, but they generally lack the technical knowledge to make sound decisions regarding rates and capital improvements.

ELEMENT 1: Offer Continuing Education Units (CEUs) for operator attendance at rules hearings or meetings.

- Certified water system operators must earn a specified number of CEUs every two years depending on the level of their certification. The Department has offered CEUs for operator attendance at several meetings and rules hearings and will continue to offer this opportunity for education related to the drinking water rules and regulations when it is appropriate.

ELEMENT 2: Develop an automatic e-mail service to keep operators updated on rule development or modification.

- The department began using an e-mail service known as a listserv in late 2005. Information on upcoming rules, training, deadlines, and water supply projects is sent out via e-mail at least twice per month to approximately 885 subscribers. This has allowed the department to communicate regularly with certified operators, engineers, and technical assistance providers. Subscription to the listserv is available to anyone who is interested in receiving it by sending a blank e-mail to *join-Water_Supply@lists.ia.gov*.

ELEMENT 3: Provide on-site board or council member training, focusing on long-term planning, financial management and full-cost financing

- The Department has access to federal funding for the implementation of the capacity development strategy through the Drinking Water State Revolving Fund capitalization grant. Up to ten percent of each year's federal grant may be used for this assistance, and IDNR has used a portion of these funds to contract with organizations to provide different types of technical assistance to water systems. The department currently has a contract focused on providing technical, financial, and managerial information to board/council members in addition to city clerks and certified operators, but the number of board/council members attending has been very limited due to lack of interest. One idea proposed during the Advisory Group meeting was to begin making use of the Training on Demand software that the Environmental Finance Center (EFC) at Boise State University

has been using to provide long distance training opportunities via the web, but this has not been implemented.

The department has also been considering methods of bringing asset management training to water systems. The department co-sponsored a training session on this topic with USEPA in 2006 and many central and field office staff attended training on the USEPA small systems asset management program (Check Up Program for Small Systems) when it was available in Iowa. During 2010, the department considered working with the Iowa Rural Water Association and USEPA Region 7 on a pilot project that would provide one-on-one asset management training to a small number of systems, but there were not enough staff available to work on the project. This pilot is continuing to move forward without the active participation of IDNR, but department staff will stay apprised of its progress and will participate in the future as resources allow.

Because of the link between asset management, managerial viability, and sustainability, financial incentives for systems that would be willing to implement asset management plans are under consideration at this time.

ELEMENT 4: Provide IDNR standard forms for water supplies in electronic form to eliminate paperwork.

- λ State government has made it a goal to provide information to the public electronically whenever possible. Many forms have been converted to electronic documents, but there remain some difficulties with accepting electronic submittals of some information. Recently, the department has considered alternatives to allow systems to submit construction permitting fees and applications electronically to make the permitting process more efficient, but staffing and financial constraints have delayed work on this initiative.

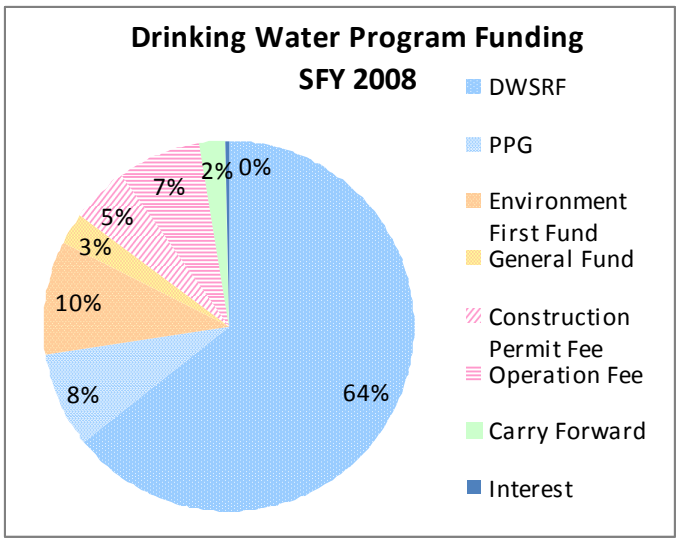
RECOMMENDATION 3: DEVELOP MORE TRUST IN THE RELATIONSHIP BETWEEN IDNR AND THE WATER SYSTEMS IT REGULATES BY PROVIDING INFORMATION ON ACTIVITIES UNDERTAKEN EACH YEAR AND ACCOUNTING FOR FEE EXPENDITURES

REASONING: Mistrust between the EPA, IDNR and water systems was identified as a barrier to the capacity of water systems.

ELEMENT 1: Prepare an annual report for the water systems to account for spending of the annual fees paid by the water systems.

- λ During the 2008 Advisory Group meeting, stakeholders agreed that an annual budget report would be a valuable tool in obtaining the support of the water systems when additional funds are needed, either from the legislature or through an increase in water system fees. The group suggested that this accounting be incorporated into the State Annual Compliance Report, which is prepared at the end of each state fiscal year. In 2009, the department prepared a summary of the funds and expenditures and included this information in 2008 State Annual Compliance Report. This was very difficult

because the report is due by June 30th each year and the department accounting staff does not provide final spending numbers for the year until at least September. In addition, these numbers are not readily available and took a considerable amount of time to locate and verify. Because of the amount of time it took to prepare the numbers and graphs, it was determined that this was not something that could be done each year. Since 2008, the numbers have not changed significantly, so the 2008 graph and related explanation are included here for reference.



The drinking water program funding in SFY 2008 was $4.96 million and was funded by three sources: federal grants, state appropriations, and fees.

- The federal sources were the set-aside funds from the Drinking Water State Revolving Fund program and the Performance Partnership Grant.
- The state funding included an annual appropriation from the Environment First Fund (sourced from lottery proceeds), and, in 2008, an additional General Fund allocation.
- The fees included the annual operation fee from each public water supply system and the construction permit fees required of each public water supply conducting permitted construction activities during the year. The annual operation fee per capita rate in 2008 was 12.11 cents, which translated to approximately 1 penny per month per person in community systems serving at least 206 people. The rate of $25.00 per system applied to all transient non-community systems and to those non-transient non-community and community systems serving fewer than 206 people.

RECOMMENDATION 4: IMPROVE CUSTOMER KNOWLEDGE OF WATER SYSTEM PERFORMANCE AND FINANCING

REASONING: Most Iowans have access to a source of safe drinking water on a consistent basis. Because of this, many people take the provision of this essential service for granted. Customers and elected officials carry the perception that safe drinking water should be enjoyed at little or no cost to consumers, making it difficult for water systems to charge the rates necessary to operate the system over the long term. The stakeholders felt that public education with regard to water supply would be valuable and beneficial.

ELEMENT 1: Provide incentives for schools to include water treatment and supply as a curriculum topic.

- λ Each year, the Department co-sponsors the Children's Water Festival; a one-day event designed to bring fifth-graders from across central Iowa together to learn about water.

Teachers are provided with curriculum materials and asked to incorporate them into the classroom prior to the Festival. Because of the benefits associated with impressing the value of safe water on young children, who will in turn tell their parents about it and grow up to be more knowledgeable consumers, the stakeholders felt that IDNR will continue to strive to provide additional resources for the Festival.
The Advisory Group in 2008 also suggested that IDNR develop a Power Point presentation that teachers could use for a lesson on water supply and place it on the IDNR web site for download. The group also asked the department to obtain educational materials such as fact sheets and graphics from trade groups like the American Water Works Association and place them on the IDNR web site so that teachers and water systems could download them for educational purposes. To date, this work has not been accomplished.

ELEMENT 2: Access EPA environmental education grant funding to assist with the implementation of Element 1.

- The Department has not pursued this yet because of resource limitations, but is aware that the Environmental Finance Center at Boise State University has a link to educational grant sources on its website. The department could include a link to the BSU website on its Drinking Water page to encourage systems or stakeholders interested in pursuing educational grants to apply for funding.

RECOMMENDATION 5: IMPROVE PARTNERSHIPS AMONG OPERATORS, AMONG REGULATORY AGENCIES, AND AMONG TECHNICAL ASSISTANCE PROVIDERS

REASONING: Stakeholders identified the need to encourage partnerships between agencies and among systems. They felt that this might result in the sharing of scarce resources and reduce the need for regulatory agency intervention.

ELEMENT 1: Use ICN training sessions or peer review forums targeted to operators, board/city council members and city clerks.

- The stakeholders originally felt that training offered via ICN offered the operators in regional areas a networking opportunity. The Department has not conducted any ICN training since the capacity development strategy was written but has encouraged technical assistance providers requesting grant funds to consider offering training via ICN. During the Advisory Group meeting, it was suggested that the Training on Demand software developed by the EFC at Boise State University be used in lieu of the ICN, but this has not been used in the past three years. With the advent of webcasting, training conducted by the department or its contractors could be done over the internet to save travel costs and time.

  In 2008 and again in 2010, the department initiated Performance Based Training, an advanced training workshop for surface water system operators. The training consists of six sessions where optimization concepts and the special studies method are introduced. The operators participated in workshops to show how the concepts apply to real world

situations and then returned to their plants to apply what they've learned. The operators presented their homework from the previous training session each time. An average of two operators from eight plants participated in each training series and the format of the sessions allowed multiple opportunities for networking. The range of skills among operators was very beneficial since less experienced operators are given the opportunity to work in groups with operators that had been on the job for many years. The department expects to support the network through continued meetings with participating operators and annual workshops for surface water treatment operators. The concepts used in Performance Based Training (leadership and presentation skills training, accountability through homework, networking, and development of skills directly related to the job) seem to be very successful and the department is seeking ways to integrate these concepts into other types of training it sponsors.

The department also participated in the development of the Iowa Water/Wastewater Agency Response Network (IOWARN), a system of "utilities helping utilities" to deliver mutual aid following major emergencies. This allows for the provision of mutual aid among utilities and promotes emergency preparedness for all sizes of water systems. Information on this program is available at *http://iowarn.org*.

A new training program is being developed by the IDNR to provide on-site assistance to systems using retired operators as mentors. Operators in need of general assistance or help with a specific problem will be able to contact a pool of operators with experience to visit their system and provide advice. The department expects to have this program in place during 2012.

The department will continue to look for opportunities to encourage partnerships among water systems.

ELEMENT 2: Use the Iowa State University extension as a source of technical assistance for financial issues to operators and city clerks.

- The Department has not contracted with the extension service as a source of technical assistance, but this idea still has merit. Because the department does not have a direct relationship with city clerks and the ISU extension conducts an annual workshop for clerks, it was thought that this might be a way to reach this audience with financial and managerial topics related to water supply systems. During past Advisory Group meetings, training ideas for city clerks have been discussed, but this element has never been implemented.

ELEMENT 3: Encourage partnerships between technical assistance providers such as the Iowa Association of Water Agencies, the American Water Works Association, the Iowa Rural Water Association, and the Iowa Association of Municipal Utilities through joint planning meetings with IDNR.

- The department does encourage partnerships among these providers by participating in meetings of the Joint Operator Certification Committee and the Water Utility Council,

but would like to participate more directly. Because of concerns about duplicate training efforts, stakeholders suggested that IDNR sponsor meetings for technical assistance providers twice per year to evaluate training needs. The department would provide a summary of the common deficiencies noted during sanitary surveys as a basis for discussion of training needs during the meetings. These meetings would also allow members of the Advisory Group to meet more often than once every three years and provide additional input into the training curriculum. The department has not initiated these meetings during the last three years, but still intends to implement this element to allow for more frequent Advisory Group meetings and more contact among the technical assistance providers.

ELEMENT 4: Reimburse these types of activities through the operator certification training program.

- In 2002, Iowa applied for and received a $2.48 million federal grant for operator certification training. The grant funds were fully expended during 2009, and this was a topic of discussion for the stakeholders during the last Advisory Group meetings. Some technical assistance providers felt that the operators and systems had become accustomed to free or very low cost training and that without grant funds, training was going to become cost-prohibitive. The department has found, though, that the loss of the expense reimbursement grant funds has not had a great impact on the number of operators seeking training. This element will not be implemented unless additional federal grant funds become available.

RECOMMENDATION 6: BREAK DOWN BARRIERS TO INTER- AND INTRA-DEPARTMENTAL COMMUNICATION

REASONING: Stakeholders recognized the lack of communication among regulatory agencies with authority over similar programs as a barrier to the increased capacity of the water systems.

ELEMENT 1: Increase contact with legislators and other agencies by scheduling a regular meeting with interested parties to discuss activities related to drinking water.

- The Department has not pursued this element but was encouraged by the stakeholders to keep working toward this goal in 2005. Even though individual legislators may not have an interest in meeting with the department, IDNR does attempt to provide information and education to legislators whenever it is requested.

ELEMENT 2: Increase communication with the Department of Public Health to discuss drinking water program responsibilities and activities.

- While IDNR has primacy for the public drinking water program, the Health Department has jurisdiction over matters such as cross-connection programs and fluoridation, both issues of interest to public water supplies. Coordination between the two agencies is needed to avoid sending a confusing message to drinking water operators. The Department has made a concerted effort to accomplish this; changes in personnel at the

Department of Public Health during the past few years have improved interagency communications. This is still a goal of the program that continues to be pursued as the opportunity arises.

ANOTHER barrier identified during Advisory Group meetings was the lack of communication and coordination among divisions, bureaus, and sections of IDNR.

ELEMENT 1: Establish meaningful organization performance measures to increase public confidence in the Department and foster a higher sense of accountability.

- Various performance objectives have been developed by IDNR and EPA, but these may not be increasing public confidence in the department because of their general nature. Stakeholders in 2005 felt that regulations such as the Consumer Confidence Report requirement, which ensures that every community public water system develops a report to let consumers know what the water was tested for and what the analytical results were each year causes alarm among consumers because of the federally prescribed language that must be used in the report. The development of the listserv has allowed the IDNR to discuss the types of activities being undertaken in the drinking water program and allowed consumers to learn more about how the department and certified operators in the state are working to provide them with safe and reasonably priced drinking water.

  Each year the department prepares a compliance report to show the percentage of systems that are meeting the requirements of the Safe Drinking Water Act and makes this report available to the public. During 2010, 91% of public water systems continuously met all health based standards and 82% of systems were in compliance with all major monitoring and reporting requirements. The annual compliance reports are available for review at http://www.iowadnr.gov/InsideDNR/RegulatoryWater/DrinkingWaterCompliance/AnnualComplianceReport.aspx.

  There are several other performance measures that IDNR monitors and reports on each year as part of federal grant conditions, but these are generally not made available to the public unless the information is requested.

ELEMENT 2: IDNR management should address the issue of intra-bureau communication since the water supply section should be working closely with wastewater and water resources sections to accomplish their missions.

- The Department has taken a number of steps in the past eleven years to promote better intra-bureau communication. Breaking communication barriers due to "compartmentalized" programs with separate funding sources and enabling legislation is difficult. Drinking water and wastewater staff communicate on a frequent basis. The Department will continue to work on developing better cross-program communication through a variety of venues.

ELEMENT 3: IDNR management should address the issue of intra-agency communication since the water supply section should be working closely with the Land Quality Bureau and Iowa Geological & Water Survey to accomplish their missions.

- λ As mentioned above, the Department has taken a number of steps to promote better intra-departmental communication, such as putting all environmental programs under one division. All managers within the Environmental Services Division meet semi-annually to discuss issues of interest to the division. Field office and central office staff continue to meet three to four times per year to discuss issues and resolve policy and implementation questions. Several positions at the IGWS have been funded with water supply funds over the past three years, allowing for better coordination and communication. Water supply has worked closely with the Contaminated Sites Section of the Land Quality Bureau and the IGWS on source water protection activities for community water systems, and funds these activities through set-aside funds from the Drinking Water State Revolving Fund.

RECOMMENDATION 7: DEVELOP INNOVATIVE TECHNIQUES FOR FINANCING CAPITAL IMPROVEMENT PROJECTS FOR SMALL SYSTEMS

REASONING: Small systems face the challenge of acquiring capital resources for improving or replacing water system infrastructure. Non-governmental systems do not have access to traditional government-sponsored capital financing programs and even the systems that can qualify for traditional funding programs may have difficulty accessing capital financing.

ELEMENT 1: Sponsor a meeting or a series of meetings where capital financing agencies, public finance specialists and public water system stakeholder groups discuss innovative techniques for financing small system capital improvements.

- λ The department did not implement this element as described, but several changes were made to the Drinking Water State Revolving Fund (DWSRF) in conjunction with the Iowa Finance Authority during past years to make it easier for small systems to borrow money for capital improvements. The DWSRF implemented a disadvantaged communities program in 2006, allowing systems serving a low income population to extend their loans up to 30 years. The majority of all DWSRF loans continue to be made available to small systems in the state. Additionally, IDNR has continued to meet on a monthly basis with the Iowa Department of Economic Development and the Rural Development Agency to discuss the joint funding of projects and leveraging of funds to make projects affordable for small systems. Recent years have seen several forgivable loans and grant opportunities through the American Recovery and Reinvestment Act, the state's IJOBS program, and changes to the appropriation language that provides capital for the Drinking Water State Revolving Fund.

  A suggestion during the 2008 stakeholder meeting was to make use of one of the new tools developed by the Environmental Finance Center of Boise State University, the financial dashboard. This tool allows a user to enter financial data for a water system to determine whether financial ratios are in positive or negative ranges and could be used

statewide to measure the state of water system finances in Iowa over time. The IDNR has not utilized this tool yet, but it remains as an option if resources allow.

RECOMMENDATION 8: ACQUIRE INFORMATION ON THE PERSONNEL AND FINANCIAL RESOURCES AVAILABLE TO THE STATE'S DRINKING WATER PROGRAM

REASONING: The perception of the stakeholders during development of the capacity development strategy was that the personnel resources of the Department had not kept pace with the increasing responsibilities of the drinking water program. Stakeholders felt that an evaluation of program resource needs would provide them with the information they needed to support the financial and staffing resource needs of the program.

ELEMENT 1: Commission a third-party assessment of current and future program resource needs.

- A third-party assessment was conducted in 2002 and discussed in the 2005 report to the governor, but stakeholders felt that the assessment, conducted by an EPA contractor, was not adequate information to allow them to fully support additional requests for financial support of the water supply program in the legislature and among water systems. The group felt in 2005 that the department should be working with stakeholders to assess its performance and perhaps to look at what activities should receive less priority than others, and that this collaboration would provide them with more confidence in how the water supply section was operating and spending the fees that the water systems provide.

  As part of the stakeholder meeting in 2008, the shifting of resources from the water supply program to other priority areas of the department for water quality improvements was discussed. The program currently receives funding from water system operating fees, construction permitting fees, an appropriation from the Environment First Fund, and DWSRF set aside funds. Operating fees have been capped at $350,000. The majority of compliance problems and technical assistance is due to small and noncommunity systems, but the fees for these systems are capped at $25 per year and this has proved difficult to change. Following the 2008 meeting, stakeholders wrote a letter to the Governor's office to emphasize the importance of the capacity development program and the need for additional resources for the drinking water program.

  Discussion of the funding for the program will continue with stakeholders as the department considers the impacts of budget cuts and reduced appropriations as a result of the national recession.

SUMMARY

The Iowa Department of Natural Resources is continuing implementation of its capacity development strategy for existing public water supplies. Efforts in the last three years have focused on using an enhanced sanitary survey program to collect information on the managerial and financial aspects of water systems in addition to the technical information that has traditionally been collected during sanitary survey inspections and also to develop a means of

using this information to prioritize systems in a manner that allows the department to target technical assistance to these systems in the most efficient manner.

The department has continued its contract for on-site technical assistance with the Iowa Association of Municipal Utilities and has provided assistance with such items as sampling plans, water rate review, and operation and maintenance plans to almost 300 water systems during the past three years.

Specific training has been directed to the state's largest water systems through the department's Area Wide Optimization Program (AWOP), a voluntary program that assists systems with going above and beyond the regulations to produce water that meets stringent turbidity requirements and ensures the highest level of public health protection. The department has provided funding for Performance Based Training, an intensive series of classes attended by approximately 32 water system operators and managers to educate them on the concepts of optimization and also to provide the opportunity to network with other water professionals and to equip them with specific skills that they can use to improve the water quality at their own plants. Eleven department staff participated in this training as facilitators and benefited from the exposure to advanced water treatment topics and the chance to develop one-on-one relationships with water system personnel.

The department's participation in the USEPA Region 6 AWOP has allowed staff the opportunity to learn about the challenges that surface water treatment plants experience and has enhanced IDNR's capability to deal with problems as they arise. This allowed for better training on concepts that present challenges, such as the integrity of turbidity data or the concept of using contact time for disinfection.

The Environmental Protection Agency has identified billions of dollars of drinking water infrastructure that will be in need of improvement within the next 20 years. With limited state and federal funds available to the water systems, it makes sense to ensure that these systems are financially sustainable and looking to the future before the need for critical infrastructure becomes imminent. The IDNR will continue to work to bring asset management to water systems over the next few years and talk with systems about how to inventory and assess infrastructure and make informed decisions on maintenance, repair, and replacement to meet the needs of customers.

As drinking water regulations become ever more complex, the goal of the capacity development program is to give water supply operators the tools they need to communicate with their customers and administrators about what they do and what they need to do their jobs correctly and provide safe water to the public. The activities detailed in this report support this goal, and with continued implementation of the program, will continue to do so in the future.

AVAILABILITY OF THIS REPORT

This report must be made available to the public as required by the amended Safe Drinking Water Act of 1996. It will be placed on the IDNR Water Supply Engineering web page and a notice of availability of the report will be sent out via the listserv.