

**State of Kansas  
Capacity Development Strategy**

**for**

**Existing Public Water Supply Systems**

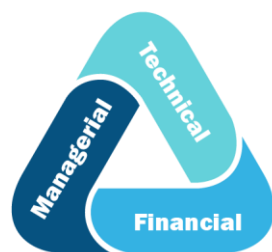
**Revision 1**



**Kansas Department of Health and Environment  
Division of Environment  
Bureau of Water  
Public Water Supply Section**

**1000 SW Jackson Street, Suite 420  
Topeka, Kansas 66612  
(785) 296-5514**

**December 31, 2022**



# **CAPACITY DEVELOPMENT PROGRAM**

**Public Water Supply Section**

A program of the Kansas Department of Health and Environment

The Kansas Capacity Development Program provides training, technical assistance, and financial planning assistance to help public water supply systems achieve and maintain the technical, financial, and managerial capabilities needed to protect the health of the citizens they serve.

# Table of Contents

|  |   |
|--|---|
| Preface  | 1 |
| Introduction   | 2 |
| 2022 Additions to the Kansas Capacity Development Strategy for Existing PWS Systems                                    |   |
| Asset Management Program   | 2 |
| Compliance Assistance Program  | 3 |
| Ongoing Activities of the Kansas Capacity Development Strategy for Existing PWS Systems                                |   |
| Public Water Supply Training and Technical Assistance  |   |
| Financial Planning and Rate Setting Assistance   | 4 |
| Planning Grants  | 4 |
| Area-Wide Optimization Program   | 5 |
| Drinking Water Protection Program  | 5 |
| Capacity Development Survey  | 5 |
| Kansas Public Water Supply Loan Fund Program   | 6 |
| Appendix 1: Report of Findings (July 2000)   |   |
| Appendix 2: State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems (August 2000)       |   |
| Appendix 3: State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems, Amendment 1 (2007) |   |
| Appendix 4: State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems, Amendment 2 (2015) |   |

## Preface

This document is a demonstration of how the State of Kansas, Kansas Department of Health and Environment (KDHE) plans to implement a strategy to assist existing public water systems in improving their technical, financial, and managerial (TFM) capabilities. This initiative is a requirement imposed by the 1996 Amendments to the Safe Drinking Water Act (SDWA) on all states that wish to receive full funding from the U.S. Environmental Protection Agency (EPA) for their drinking water revolving loan programs. Section 1420 of the SDWA specifies five elements that a state must consider when preparing a strategy for helping existing public water systems to improve their TFM capacity. States were required to submit their strategies to EPA for review by August 6, 2000.

In March of 1999, KDHE convened a Citizen's Advisory Workgroup to advise the agency on how it should approach the SDWA capacity development provisions. This workgroup was composed of persons who represented a wide variety of groups with an interest in drinking water issues. The Workgroup's *Report of Findings* (Appendix 1) is the basis for the first Capacity Development Strategy (Appendix 2). It describes in detail how the five elements required by the SDWA were considered during the Advisory Workgroup's work. It provides fifteen specific recommendations to KDHE on how the agency and state can assist public water systems in improving TFM capacity.

The first Kansas Capacity Development Strategy for Existing Public Water Supply Systems (Appendix 2) was adopted in September 2000; Amendment 1 to the Strategy (Appendix 3) was adopted during State Fiscal Year 2007; and Amendment 2 (Appendix 4) was adopted during State Fiscal Year 2015. The fifteen (15) recommendations in the first Strategy are fully implemented. As part of ongoing implementation efforts, a periodic review and update is conducted to ensure that the Capacity Development Program continues to support the development of new tools and programs that assist water systems in capacity building.

The 2018 America's Water Infrastructure Act (AWIA), Section 2012, requires state drinking water programs to consider and include as appropriate asset management in their state capacity development strategies. Consistent with this statutory change, state drinking water programs are expected to revise their capacity development strategies to include a description of how asset management will be promoted through addressing the five-core-question framework of asset management. This updated Strategy will address these requirements.

KDHE hosted a Stakeholder Meeting on January 29, 2020. Stakeholders from the following organizations were invited to the meeting: EPA-Region 7, League of Kansas Municipalities, Kansas Department of Agriculture, Kansas Department of Commerce, Kansas Municipal Utilities, Kansas Rural Water Association, Kansas Section American Water Works Association, Kansas Water Office, Midwest Assistance Program, Ranson Financial, United States Department of Agriculture Rural Development, and WSU EFC. AWIA requirements regarding the addition of asset management to the strategy were discussed. The promotion and development of Asset Management at water systems was also discussed. A second meeting was held on March 10, 2022, with the assistance of the Wichita State University Environmental Finance Center (WSU EFC). WSU EFC Staff defined capacity development and gave an overview of the Kansas Capacity Development Program. Asset Management was introduced to the Stakeholders and the Five Core Components were explained.

## **Introduction**

Water system capacity is the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Capacity consists of three elements: Technical, Financial, and Managerial (TFM). Technical Capacity or capability is the physical and operational ability of a public water supply (PWS) system to meet SDWA requirements, including the adequacy of physical infrastructure, technical knowledge and capability of personnel, and adequate source water. Financial Capacity or capability is the ability of a PWS system to acquire and manage sufficient financial resources to allow the system to achieve and maintain compliance with SDWA requirements. Managerial Capacity or capability is the ability of a PWS system to conduct its affairs in a manner enabling the system to achieve and maintain compliance with SDWA requirements, including institutional and administrative capabilities. Properly managed systems have governing boards or authorities that are actively involved in oversight of system operations, while at the same time avoiding micromanagement.

Capacity development is the process of PWS systems acquiring and maintaining adequate technical, financial and managerial capabilities to ensure that systems consistently achieve the public health protection objectives of the 1996 Safe Drinking Water Act and to address both immediate and long-term challenges.

The Kansas Capacity Development Assurance Program consists of two components: 1) New System Capacity Assurance review and permitting; and 2) Implementation of the Capacity Development Strategy for Existing Public Water Supply Systems (“Strategy”). The remainder of this document updates the Strategy for existing public water supply systems. The recommendations in the original Strategy and subsequent amendments will continue to be implemented along with the additions of Asset Management and Compliance Assistance programs.

## **2022 Additions to the Kansas Capacity Development Strategy for Existing PWS Systems**

### **Asset Management Program**

In the simplest terms, Asset Management can be thought of as applied common sense. Asset Management is designed to help water systems decide how and where to spend their money to achieve the desired results. Such a process is needed when there are competing priorities for limited funding.

Asset Management is maintaining a desired level of service (what you want your assets to provide) at the lowest life cycle cost (best appropriate cost – not no cost). Asset Management provides a set of tools and practices that can assist a water utility in operating, maintaining, and managing assets in a cost-effective, sustainable fashion.

There are five core components of Asset Management:

1. What is the **Current State of the Assets**
2. What is the **Desired Level of Service**
3. Which Assets are **Critical to Sustained Performance**
4. What is the **Best Life Cycle Cost**
5. What is the **Long-Term Funding Strategy**

Since 2011, KDHE has provided asset management training using the AM KanWork Manual, which was developed by the New Mexico State Environmental Finance Center (now the Southwest Environmental Finance Center) under a contractual agreement. Training and onsite technical assistance focusing on the five core components using AM KanWork will continue to be provided to Kansas public water supply systems through contractual agreements. In addition to training and technical assistance, additional points can be added to a State Revolving Loan Fund (SRF) application if the PWS has an asset management plan. Continued implementation of AM KanWork training and technical assistance meets the requirements of AWIA, Section 2012.

### **Compliance Assistance Program**

During 2022, KDHE started implementation of the Compliance Assistance Program (CAP). The CAP mirrors many of the activities of the Drinking Water Protection Program (DWPP) but focuses on contaminants other than nitrates. KDHE works directly with small groundwater PWS systems in non-compliance with drinking water maximum contaminant levels (MCL), primarily arsenic, but other contaminants may be considered depending on the circumstances. Activities may include, but are not limited to:

- Site Assessments
- Special Study Sampling
- Operational Assistance
- Financial Assistance using EPA Small and Disadvantaged Community Grants
- Rate-setting Assistance
- SRF Loans

KDHE may provide this assistance using internal staff or outside 3<sup>rd</sup> party contractors depending upon the circumstances and needs at the PWS system. The primary goal of the CAP is to bring small PWS systems back into compliance without construction of expensive and complex treatment technologies that the PWS cannot afford or has the technical capability to operate.

### **Ongoing Activities of the Kansas Capacity Development Strategy for Existing PWS Systems**

As noted in the Introduction, KDHE will continue the activities established in the original Strategy, as amended, to implement the recommendations of the Capacity Development Workgroup. These activities are briefly described below.

#### **Public Water Supply Training and Technical Assistance**

KDHE sponsors technical assistance and training through 3<sup>rd</sup> party contracts. These contracts cover the following:

1. Operator-In-Training Technical Assistance: Provide assistance to KDHE designated drinking water operators-in-training (OIT). Assistance will be provided on a KDHE referral basis to help OITs operate and maintain approved public water supply treatment and distribution systems.

2. Small Public Water Supply System Operator Training: Provide in-person and virtual classroom training for operators of public water supply systems. Topics may include surface water treatment, groundwater treatment, distribution system operation and maintenance, emergency planning and response, and Safe Drinking Water Act rule-specific implementation.
3. Public Water Supply System Governing Body Education: Conduct workshops using KDHE's KanCap materials to address managerial, financial, and technical responsibilities related to oversight of a public water supply system.
4. Planning and Permitting Assistance: Provide emergency planning assistance, assistance with the new PWS system permit, and Public Water Supply Data Collector assistance.
5. Technical Assistance at Small Public Water Supply Systems: Technical assistance to public water supply systems that serve a population of less than 10,000 people by KDHE referral or approval only.

### **Financial Planning and Rate Setting Assistance**

Financial Planning Assistance is available through a 3<sup>rd</sup> party contract. Contractors provide financial planning and rate-setting assistance using the Kansas Rate Checkup software to public water supply systems. In addition to the initial rate review, one (1) year of technical assistance is provided at no charge to the systems. Water systems will be able to use the Rate Checkup software to help review budgets, rates and financial planning procedures. The software generates reports that will help the systems achieve and maintain financial capacity, including an analysis that illustrates the rates required to maintain long-term financial health to help keep the system in compliance.

### **Planning Grants**

The Capacity Development Program provides planning assistance through three separate grant programs. KDHE uses SRF fees to provide funding for all three programs.

1. Regional Public Water Supply Planning Grants
  - a. Provides 50% cost-share up to \$12,500 for developing engineering studies that evaluate regional solution to PWS needs.
2. Small PWS System Planning Grants
  - a. Provides 50% cost-share up to \$5,000 for developing engineering studies for PWS systems serving a population of 1,000 or less that are out of compliance with drinking water regulations.
3. Corrosion Control Study Grants
  - a. Provides 50% cost-share up to \$3,000 for developing a corrosion control study for PWS systems serving a population of 10,000 or less that are required to complete a corrosion control study under the Lead and Copper Rule Revisions (LCRR).

## **Area-Wide Optimization Program (AWOP)**

The Area Wide Optimization Program (AWOP), initiated in 2017, is a voluntary program initiated to assist water systems toward optimizing their existing water treatment processes without major expenditures or infrastructure improvement. Optimization of public water supply systems is pursued in an effort to increase public health protection. AWOP was originally designed to address microbial contaminants only but has since grown to include many other areas of optimization, including but not limited to disinfection by-products and harmful algal blooms. Optimization is pursued through a variety of channels and mechanisms. The method of pursuit is dictated by the water system's areas of vulnerability.

## **Drinking Water Protection Program (DWPP)**

The high capital cost along with the long-term operation and maintenance cost associated with installation of treatment facilities at small drinking water systems prompted KDHE to explore alternative approaches for compliance with drinking water regulations. One such approach is the Drinking Water Protection Program (DWPP), previously known as the Source Water Protection Program. The DWPP is a joint project between the Public Water Supply and Watershed Management Sections. It is designed to help water systems provide drinking water that complies with state and federal regulations through protection of the source water. The goal of DWPP is to help water systems avoid expensive treatment alternatives by developing and implementing a long-term drinking water protection plan. A multi-discipline technical team reviews investigation work plans, analytical testing and investigation reports. They then make suggestions for modifications to plans and best management processes to reduce contamination impacting the water supply system. Planning and implementation is primarily driven by the Local Leadership Team with assistance and support by KDHE. Participation by the water systems is voluntary.

KDHE will use compliance and TFM survey data to identify water systems eligible for financial and technical assistance under DWPP. Guidance documents will also be made available to water systems interested in developing a drinking water protection plan independent of KDHE assistance.

## **Capacity Development Survey**

KDHE will continue implementation of the Capacity Development Survey, first developed and completed in 2002. The results were reported in the 2002 Report to the Governor. TFM Surveys are conducted every 3 years in conjunction with the Report to the Governor. In February 2014, KDHE launched the Public Water Supply Data Collector (PWSDC), a web-based survey tool used to conduct the Capacity Development Survey. The 2014 survey established a baseline that is used to measure improvements or identify weaknesses in water system capacity. The survey is also used to identify training and/or technical assistance needs to help systems achieve and maintain TFM capacity.

Each water system is assigned a score based upon its survey response. This score is used to determine placement in High, Medium or Low priority category. Placement in the High category indicates the system has insufficient capabilities in all three areas of capacity development or is extremely deficient in one area. These are also the systems that often have drinking water compliance challenges. Water systems in the Medium category usually comply with regulations and may have only a few TFM related deficiencies. The Low priority category includes the water systems that demonstrate sufficient TFM capabilities and



rarely experience compliance problems. The ultimate goal is to have the fewest number of systems in the High priority category with the majority of water systems in the Low priority category.

### **Kansas Public Water Supply Loan Fund Program**

The SDWA prohibits loans from the Kansas Public Water Supply Loan Fund to systems that are not in compliance with drinking water standards unless such loans would bring the system into compliance. The SDWA further prohibits loans to systems that do not demonstrate technical, financial and managerial (TFM) capacity unless such systems agree to make the necessary changes in operations including but not limited to management, accounting, rate structure or other procedures that would ensure TFM capacity over the long term. The Capacity Development Survey is used to assess the TFM capacity of loan applicants and works with them to help address deficiencies that may exist.

The Capacity Development Program also collaborates with the loan program to promote development of asset management plans. This collaboration resulted in development of a matrix to determine eligibility for additional points in the loan ranking process. Applicants may receive up to 10 points in the loan ranking system if they are developing and/or implementing an asset management plan.

## **Appendix 1**

### **Report of Findings**

# **REPORT OF FINDINGS**

---

## **ON IMPROVING THE TECHNICAL, FINANCIAL AND MANAGERIAL CAPACITY OF KANSAS' PUBLIC WATER SYSTEMS**

**by the**

**Capacity Development Workgroup**

**to the**

**KANSAS DEPARTMENT OF HEALTH AND  
ENVIRONMENT**

**JULY 2000**

## TABLE OF CONTENTS

---

|   |    |
|---|----|
| Executive Summary .....   | i  |
| Glossary of Terms and Acronyms Used in This Report .....  | v  |
| Introduction to Capacity Development: Safe Drinking Water Act (SDWA).....   | 1  |
| Kansas’ Capacity Development Workgroup.....   | 3  |
| Section A: Identifying Systems In Need of Technical, Financial, and Managerial<br>Assistance .....                              | 5  |
| Section B: Factors that Encourage or Impair Capacity Development.....   | 8  |
| Section C: Recommendations on How the State Can Use Its Authority<br>and Resources to Help Water Systems Improve Capacity ..... | 23 |
| Section D: Measuring the Success of Kansas’ Capacity Development Strategy .....   | 27 |
| Section E: Public Involvement in Preparing the Kansas Capacity Development<br><i>Report of Findings</i> .....                   | 29 |
| Appendix A: Capacity Development Workgroup Meeting Highlights.....  | 30 |

---

## EXECUTIVE SUMMARY

---

During 1998 and 1999, the Capacity Development Workgroup to the Kansas Department of Health and the Environment (KDHE) considered the challenge of improving the technical, financial and management (TFM) capabilities of public water systems. This *Report of Findings* presents the work of the Workgroup for consideration by the general public and KDHE management. Guidance for the Workgroup in preparing this report came generally from the Safe Drinking Water Act (SDWA) Amendments of 1996. At the heart of this report are the Workgroup's recommendations regarding the programs that The KDHE Water Supply Section could strengthen or establish that would assist water systems in building capabilities to achieve compliance with the requirements of the SDWA.

The body of the report is presented in five sections, labeled alphabetically. This is an intentional correspondence with the language in the SDWA, which lays out the five elements that a state must consider when preparing a capacity development strategy.

### **Section A: Identifying Water Systems in Need of Technical, Financial and Managerial Assistance**

In Kansas, there are currently a variety of reliable sources of information about the status of public drinking water systems. Included among these sources are compliance information maintained by the Kansas Department of Health and Environment, information from stakeholder organizations, and other official records of water system status. The Kansas Water Office (KWO) is also responsible for reviewing the capabilities of water systems. Section A envisions a process whereby the variety of information about the current and future operations of water systems can be used to develop statewide benchmarking and can also be reviewed to determine which systems are most in need of technical, financial and management capacity building assistance. The process, generally described in illustration A, will initially utilize available information from multiple sources. Over time, as the KWO survey all water systems, the survey information will be the primary source of determining systems most in need of assistance.

### **Section B: Factors That Enhance or Impair Water System Capacity development**

Factors operating at the Federal, State, and local level that enhance or impair water system capacity are presented in this section of the report. These factors were drawn from the experience of Workgroup members, and from knowledge gained by the KDHE in administering the drinking water program over the years.

The Workgroup identified 119 factors at the Federal, State and local levels that are either enhancements or impairments to public water system TFM capacity. Enhancements and

impairments were further divided into six categories: Institutional, Regulatory, Financial, Tax, Legal and Other.

*TABLE B1: FEDERAL, STATE AND LOCAL FACTORS THAT AFFECT WATER SYSTEM TECHNICAL, FINANCIAL, AND MANAGERIAL CAPACITY*

| FACTORS       | ENHANCEMENTS | IMPAIRMENTS |
|---------------|--------------|-------------|
| INSTITUTIONAL | 18           | 29          |
| REGULATORY    | 7            | 17          |
| FINANCIAL     | 15           | 16          |
| TAX           | 3            | 6           |
| LEGAL         | 3            | 1           |
| OTHER         | 1            | 3           |
| TOTAL         | 47           | 72          |

### **Section C: Recommendations on How the State can use its Authority and Resources to Help Water Systems Improve Capacity**

In developing the conclusions drawn from analyzing the enhancements and impairments noted in Section B, the workgroup identified fifteen recommendations as to how the resources of the State and other stakeholders could be utilized to help water systems improve TFM capabilities. The fifteen non-prioritized elements are outlined below, and presented in full within the *Report of Findings*.

1. Statewide benchmarking that can be used to identify general positive and negative trends developing in Kansas water systems. The Kansas Water Office in conjunction with other agencies and technical assistance providers, will create a voluntary survey designed to incorporate TFM criteria. The results will help the State analyze how to utilize limited technical assistance to best aid water systems. Initial discussions were that the survey would be conducted on a voluntary basis. After further discussion, the workgroup agreed that the survey should be mandatory and that the survey should be repeated every three years.
2. Provide State lawmakers with an information package detailing TFM and why the State is promoting capacity assessment and improvement for public water systems.
3. Annual submittal by all public water systems of a water use report to the Kansas Division of Water Resources.
4. KDHE should investigate the feasibility of developing a water system “as built” mapping assistance program.

5. KDHE should develop TFM guidance development tools that a system can use to prepare for the triennial survey, or that can be used by a certified technical assistance provider to help a system complete the survey.
6. Fiscal capacity and financial management training should be provided to water system personnel and elected officials.
7. Encourage partnerships and communication between agencies and among water systems.
8. KDHE should work with stakeholder groups and others to provide information to the public to improve the general knowledge of drinking water issues.
9. Establish rules relative to water meter use. This information is critical for rate setting and for daily system operations.
10. Develop a user-friendly guide on statutes and regulations relative to public drinking water systems and distribute for use by water system operators, managers, consultants, and customers.
11. KDHE should develop a training program designed to increase the capacity of water system board members to solicit appropriate engineering services for system expansion and improvements.
12. Assist systems in developing Facilities Management Plans that focus on preventive maintenance and establishing regular maintenance schedules, include repair/replacement guidelines for key components in a system, and plan for investment in the physical facilities of the system.
13. The KDHE should take a proactive approach in providing information to public water systems that is accurate and understandable. The workgroup recommended ideas such as a periodic newsletter and a CCR-style report that would include an accounting of how water supply fees were spent in addition to a summary of annual compliance data and KDHE activities.
14. The Workgroup recommends a third-party assessment of current and future program resource needs to provide information to overcome the perception that KDHE personnel resources have not kept pace with the new responsibilities of the State Drinking Water Protection Program.
15. Review available training material, and develop supplemental training material as needed for new board/council members that would help them understand their role in the oversight of the water system, and in helping their system acquire and maintain TMF capacity.

## **Section D: Measuring the Success of Kansas' Capacity Development Strategy**

In fashioning its capacity development strategy, the Workgroup noted in Section D how the KDHE might assess the performance of capacity building efforts. Four general measures of success were developed. First, the KDHE could note changes in compliance performance, both statewide and on a system-specific basis. Second, the KDHE could track the number of TFM assistance site visits and use enhanced sanitary surveys conducted by program personnel to review TFM measures. The number of water systems that complete self-assessments of capacity could also be recorded. Third, by conducting "customer surveys" to obtain feedback from water systems that receive assistance under the strategy, the KDHE could learn more about the effectiveness of its programs. Finally, the KDHE could keep track of the number of water systems that prepare capital facility management plans, water system plans, and other activities that contribute directly to enhanced capacity.

## **Section E: Public Involvement in preparing The Kansas Capacity Development Report of Findings**

The final section of the Workgroup's *Report of Findings* provides a description on how the Capacity Development Workgroup was formed and describes how the broadest possible involvement by citizens and stakeholders was obtained.



---

## **GLOSSARY OF TERMS AND ACRONYMS USED IN THIS REPORT**

---

**AWWA:** American Water Works Association – This organization of water professionals is dedicated to providing leadership to the drinking water profession in the areas of drinking water quality, water resource policy, and water related planning.

**Capacity:** Refers to the capabilities required of a public water system in order to achieve and maintain compliance with the drinking water rules. It has three elements:

**Technical:** Technical capacity or capability means that the water system meets standards of engineering and structural integrity necessary to serve customer needs. Technically capable water systems are constructed, operated, and maintained according to accepted quality standards.

**Financial:** Financial capacity or capability means that the water system can raise and properly manage the money it needs to operate efficiently over the long term.

**Managerial:** Managerial capacity or capability means that the water system’s management structure is capable of providing proper stewardship of the system. Governing boards or authorities are actively involved in oversight of system operations.

**CCR:** Consumer Confidence Report – An annual water quality report required by the 1996 SDWA amendments, which summarizes information on source water, levels of any detected contaminants, compliance with drinking water rules, and educational material.

**CEU:** Continuing Education Unit – Formal credit for participation in education and training programs, often necessary for maintaining certification or licensing status.

**DWSRF:** The Drinking Water State Revolving Loan Fund - Congress authorized this fund in 1996. The Kansas Department of Health and Environment administers the DWSRF.

**EFC:** The Environmental Finance Center at Boise State University - This organization operates under a US EPA charter to provide assistance to States and communities on matters concerned with financial management and access to financial assistance.

- KDHE:** Kansas Department of Health and the Environment – This agency is responsible for administering the drinking water standards in Kansas through a primacy agreement with US EPA.
- KRWA:** Kansas Rural Water Association. This organization provides technical and other assistance to Kansas communities and rural water districts in utility operation and management.
- LKM:** League of Kansas Municipalities. This is an organization of Kansas’s municipal government officials.
- MAP:** Midwest assistance programs. MAP is the Regional Community Assistance provider for the north central United States.
- SDWA:** The Safe Drinking Water Act – Passed by the US Congress in 1974 and amended in 1986 and 1996.
- TFM:** Technical, financial, and managerial – An abbreviation used to save space in the report and avoid frequent repetition of these terms, defined previously.
- US EPA:** The US Environmental Protection Agency - This Federal agency oversees State programs and provides financial support. EPA determines when a State’s capacity development program is in compliance with the Safe Drinking Water Act.
- USDA - RD:** US Department of Agriculture – Rural Development – This Federal agency helps rural communities by providing economic and technological assistance.

---

## **INTRODUCTION TO CAPACITY DEVELOPMENT: SAFE DRINKING WATER ACT (SDWA)**

---

Water system capacity is the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Based upon the research and technical assistance efforts of water works professionals, capacity is known to have three components: technical, financial, and management. Adequate capability in all three areas is necessary for a successful public water system.

Capacity development is the process of water systems acquiring and maintaining adequate technical, financial, and managerial capabilities to assist them in providing safe drinking water. The Safe Drinking Water Act's (SDWA) capacity development provisions provide a framework for States and water systems to work together to help ensure that systems acquire and maintain the technical, financial, and managerial capacity needed to meet the Act's public health protection objectives.

The 1996 SDWA Amendments include requirements for States to obtain authority to assure that new systems are viable, to develop a strategy to address the capacity of existing systems, and to ensure that potential Drinking Water State Revolving Fund (DWSRF) recipients have sufficient technical, financial and managerial (TFM) capacity prior to receiving loan funds (or that the loan funds will allow them to receive the capacity they require). The Act outlines several items to include in States' capacity development strategies for existing systems; however it is not mandated that States *must* include each of these items, but rather that they must *consider* each of the items in developing the strategy. Clearly, including each of the required elements produces a comprehensive capacity development program for the State and addresses all of the necessary issues. However, each State must examine each of the issues and determine those elements that best fit the needs of the State.

SDWA §1420(c)(2) addresses the requirements of strategies developed by each State to improve the technical, financial, and managerial capacity of public water systems under their jurisdiction. The development of the State's strategy is directly related to the level of financial resources available to help pay for water system improvements. A State that does not develop and implement a capacity development strategy will receive only 90 percent of the DWSRF allotment it would otherwise receive in FY 2001, 85 percent of its scheduled allotment in FY 2002, and only 80 percent of its scheduled allotment in each subsequent fiscal year.

In developing and implementing a capacity development strategy, SDWA §1420(c)(2) (A-E) requires States to “consider, solicit public comment on, and include as appropriate” five elements:

- 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 Kansas Capacity Development Workgroup chose to prepare a comprehensive *Report of Findings* that includes consideration of all SDWA-required capacity development strategy elements.

---

## **Kansas' Capacity Development Workgroup**

---

The Kansas Capacity Development Workgroup, an important assembly of drinking water stakeholders, began work toward developing this *Report of Findings* in March of 1999. In addition to the workgroup members listed below, other individuals and organizations were invited to participate in this work. An extensive mailing was conducted to solicit interest in serving with the advisory group. The purpose was to form a stakeholder group that would represent the broadest possible spectrum of interested parties while at the same time respecting the need to keep the group small enough to function efficiently. Additionally, a number of individuals who were not formally appointed chose to voluntarily attend the workgroup meetings and were able to contribute materially to the group's work. Provisions were made to expand the public involvement process by the following means:

- A mailing list of persons or organizations was developed so that periodic updates could be provided.
- A decision was made to present the initial recommendations of the group to the public through a series of public workshops.
- Organizations that publish newsletters were asked to convey information about the workgroup's activities.

These measures, taken together, helped to ensure that the public would have multiple opportunities to learn about and provide input to the viability assessment activities. A record of the group's work is found in Appendix A.

### ***Kansas Capacity Development Workgroup Active Participants***

Charles Benjamin, Legislative Coordinator, Kansas Natural Resource Council  
Bob Dunlevy, US EPA – Region VII  
Terry Duvall, KS Water Office  
Sally Finney, Executive Director, Kansas Public Health Association  
Phillip Fishburn, Midwest Assistance Program  
Kim Gulley, League of Kansas Municipalities  
Dale Hayse, Executive Director, Kansas Ground Water Association  
Melissa Hunsicker, KS Association of School Boards  
Tom Huntzinger, KS Department of Agriculture  
Terry Leatherman, KS Chamber of Commerce & Industry  
Tom Lowe, KS Water Office  
Alan Luttrell, KS Consulting Engineers Evans- Bierly-Hutchison  
Ellen Miller, Ellen Miller Group  
M S Mitchell, KS Building Industry Association

Karl W. Mueldener, Director, Bureau of Water  
Richard Porter, KS Section of AWWA  
Elmer Ronnebaum, KS Rural Water Association  
Ed Rowe, League of Women Voters  
David Shupe, Kansas rural Water Finance Authority  
Tom Sloan, Representative  
Gary Smith, USDA Rural Development  
David F. Waldo, Bureau of Water/Public Water Supply Section  
Neb Webb, KS Department of Commerce & Housing

***Kansas Capacity Development Workgroup Inactive Participants***

Randy Allen, Executive Director, Kansas Association of Counties  
Senator David Corbin, Chairman, Committee on Energy & Natural Resources  
Representative Joann Freeborn, Chairman, Committee on Environment  
Jolene Funk, KS Association of Sanitarians  
Jim Maag, Executive Director, Kansas Bankers Association  
Jack Messer, President, Kansas Chapter American Public Works Association  
Dan Ramlow, Executive Vice President, Kansas Contractors Association, Inc.

***Kansas Capacity Development Workgroup Meeting Facilitator***

Bill Jarocki, Environmental Finance Center

---

## **SECTION A: METHODS OR CRITERIA TO PRIORITIZE SYSTEMS IN NEED OF TFM ASSISTANCE**

---

### ***BACKGROUND***

The key issue in designing the State's capacity development strategy is identifying and prioritizing those public water systems that are most in need of improving TFM capacity to deliver safe drinking water to the public. At the core of this discussion is this question; "what information about water systems does the KDHE or other stakeholders have that helps identify problems that need to be addressed?" Care was taken to identify and consider the variety of sources for information about the TFM conditions of water systems. Ultimately, the Workgroup determined the following:

- The best and most current information (consistent and verifiable) for providing an indication of the capabilities of public water systems is the technical compliance information maintained by the KDHE. Some financial and management capacity information is maintained by the KDHE. The Kansas Corporation Commission also maintains financial and management information for privately owned systems.
- The drinking water program already has well defined mechanisms in place for dealing with acute risks to public health. Public notification, boil water advisories where appropriate, and immediate corrective actions are all undertaken when pathogenic organisms or high levels of chemical contaminants are detected in a water supply. Consequently, the capacity development strategy will not be expected to deal with these emergency situations.
- A pattern of non-compliance will often serve as an indication that a water system lacks TFM capacity. Failures to monitor, frequent recurrences of coliform bacteria in the distribution system, variations in water quality leaving treatment facilities and other symptoms of this nature should trigger an assessment of a water system's TFM capabilities.
- An overwhelming majority of violations of the drinking water rules occur in very small drinking water systems (serving fewer than 500 persons). Concern that prioritizing systems on the basis of population would result in an overall neglect of small water systems was alleviated by the knowledge that this size category would nearly always be the one chosen for assistance.
- The purpose of the prioritization scheme was not to decide which systems would or would not receive assistance, but was aimed more at determining the order in which systems would be given attention. Because the capacity development strategy will

- become an ongoing element of the State's drinking water program, it should be possible to eventually serve all systems that truly need capacity assistance.
- There is a need to collect additional information about the water systems to determine TFM capacity in order to deliver specific assistance to meet T, F or M capacity deficiencies.

### ***IDENTIFICATION AND PRIORITIZATION***

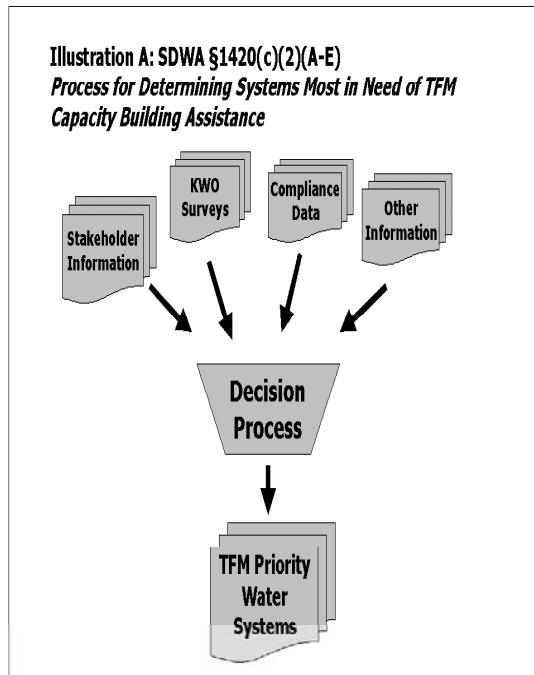
The Workgroup deliberated the issue of how current information could be used to identify and prioritize systems needing TFM capacity building. Discussions occupied portions of three meetings. As a result of the considerations identified above the prioritization model generally illustrated in the flowchart on the following page was developed.

Currently information about the status of water systems is officially maintained by the KDHE and other state agencies such as the Kansas Water Office. Assembling this information in order to gain a comprehensive view of the capability conditions of all water systems has not been accomplished in the past. Traditionally, systems have been targeted for assistance based on their compliance with state drinking water statutes, rules and regulations. Compliance data on systems is maintained by the KDHE.

The Workgroup determined that in addition to compliance data, there are other reliable sources of information available to determine which water systems are most in need of assistance in improving technical, financial and management capacity. The information is retained by a variety of State, Federal and local organizations and stakeholder groups. The committee recommends that this rich variety of information be synthesized in an open process to better determine the State's priorities for providing assistance to water systems.

The process in Illustration A generally describes how information is processed and how a prioritization of systems is accomplished. If this general framework is accepted, the KDHE will work with information sources to further refine this process.





It is also important to note the Kansas Water Office's (KWO) responsibility for assessing the capabilities of all water systems. The KWO will be implementing a system review survey that is intended to capture the critical information necessary to determine capabilities of water systems and establish a TFM benchmark for the state. As the State moves toward strategy implementation, the combination of KWO survey results and supplemental information from other stakeholders and sources will be used to determine systems most in need. As KWO fully implements its survey process, the KDHE will have access to statewide, comprehensive information that will enable the agency to identify areas where TFM assistance is most needed.

The nature of the assistance offered under the capacity development program should be determined only after an assessment of the technical, financial, and managerial capacity of the water systems that are ranked highest. Section C of this report discusses several of these assistance options being considered.

## **SECTION B: FACTORS THAT ENHANCE OR IMPAIR CAPACITY DEVELOPMENT**

### ***BACKGROUND***

Considerable attention was given to addressing Section 1420(C)(2)(B) of the SDWA Amendments of 1996. The Act requires each State to identify the factors that either encourage or impair the technical, financial, & managerial (TFM) capacity of public water systems. States are required to identify institutional, regulatory, financial, tax, and legal factors. A sixth factor category, "other," was added to capture issues outside of the prescribed categories.

The factors operating at the Federal, State, and local level that impair or enhance water system capacity are presented in this section of the report. By definition they are:

- *Institutional – Intergovernmental, cultural, procedural or relationship issues that either enhance or impair the ability of water systems to acquire and/or maintain TFM capabilities*
- *Regulatory – Federal, State or local rules and regulations that affect TFM capacity*
- *Financial – Financial practices, policies or conditions that affect TFM capacity*
- *Tax – Federal, State or local taxation practices, policies or attitudes that affect TFM capacity*
- *Legal – Federal, State or local statutes, interpretations of laws and court decisions that affect TFM capacity*

These factors were drawn from national studies, from the experience of Workgroup members and from knowledge gained by the KDHE in administering the drinking water program over the years. The Workgroup identified 119 factors at the Federal, State and local levels that are either enhancements or impairments to public water system TFM capacity.

*Table B1: Federal, State, and Local Factors that Affect Water System TFM Capacity*

| Factors       | Enhancements | Impairments |
|---------------|--------------|-------------|
| Institutional | 18           | 29          |
| Regulatory    | 7            | 17          |
| Financial     | 15           | 16          |
| Tax           | 3            | 6           |
| Legal         | 3            | 1           |
| Other         | 1            | 3           |
| Total         | 47           | 72          |

***FEDERAL FACTORS THAT ENHANCE OR IMPAIR PUBLIC WATER SYSTEM TFM CAPACITY***

Federal Enhancements to TFM Capacity

*Institutional Enhancements:*

- US EPA funding to states for the Public Water Supply Section program and to other technical assistance organizations provides support for building TFM capacity at the water system level.
- US EPA’s capacity development guidelines give states flexibility by allowing states to determine what is needed to improve water systems.
- Significant benefits are received by public water systems from the US EPA's investment in training, technical assistance and education programs offered to water systems through the Kansas Department of Health & Environment, (KDHE), and US EPA's various contractors, grantees, and partners.
- There are several different federal government entities (e.g., US Army Corp of Engineers, USDA Rural Development, USDA NRCS, and HUD CDBG) that are involved with providing services, thus providing more channels to provide help to systems.
- The US EPA is involved in the process of fashioning a State strategy for improving water system capabilities in Kansas and offers important guidance and input in the rule making process associated with implementing the 1996 SDWA Amendments.

*Regulatory Enhancements:*

- The Safe Drinking Water Act, first passed in 1974 and significantly amended in 1986 and 1996 establishes the responsibility of public water systems in protecting the public health through the provision of safe drinking water. The Act has provided an

important common ground for the protection of public health for 25 years. SDWA provides the statutory and regulatory basis for what states and local water systems must do at a minimum to provide safe drinking water.

- Depth and detail of research and the commitment to work with the regulated community and states in determining national standards is an enhancement to TFM capacity.
- Stakeholder involvement in the development of rules and regulations is an enhancement to capacity.

*Financial Enhancements:*

- Water suppliers that meet DWSRF requirements have the opportunity to make capital improvements funded with low interest loans.
- Continued funding for State programs (Public Water Supply Section) is an important enhancement to creating State capacity for TFM programs.
- US EPA is required to conduct more realistic cost per benefit studies when responding to the Congress' requirement for additional drinking water regulations.
- Availability of financing at low interest for necessary improvements.
- Federal financial support of the circuit riders and grass root organizations such as Kansas Rural Water Association, Midwest Assistance program, Kansas American Water Works Association, the Salina Vocational and Technical School, and the Community Colleges at Dodge City and Fort Scott.
- The establishment of the DWSRF, created to assist in the financing of capital improvements to public water systems, is an important new resource for building TFM capacity. Federal resources are authorized and appropriated by Congress for the establishment and enhancement of the DWSRF programs administered by the states.
- The DWSRF allows states to set-aside portions of the state capitalization grants for TFM capacity building. This is a significant source of resources for the states to fund programs for improving the capacity of public water systems.
- The USDA – Rural Development Loan and Grant Program provides a source of capital financing resources for many rural public water systems in Kansas. Often, USDA-RD will work closely with State and Federal agency representatives to package financing for rural utilities.
- The US Housing and Urban Development Agency's Community Development Block Grant program (CDBG) provides much needed grant financing for public water systems seeking to improve systems for community development purposes. CDBG funding often reduces the debt financing needs of systems.

*Tax Enhancements:* None noted for inclusion in *Report of Findings*.

*Legal Enhancements:* None noted for inclusion in *Report of Findings*.

*Other Enhancements:* None noted for inclusion in *Report of Findings*.

*Table B2: Federal Factors that Affect Water System TFM Capacity*

| Factors       | Enhancements | Impairments |
|---------------|--------------|-------------|
| Institutional | 5            | 11          |
| Regulatory    | 3            | 9           |
| Financial     | 9            | 7           |
| Tax           | 0            | 1           |
| Legal         | 0            | 0           |
| Other         | 0            | 0           |
| Total         | 17           | 28          |

#### Federal Impairments to TFM Capacity

##### *Institutional Impairments:*

- While considerable funding is provided, demand for oversight, assistance programs and capital expenditures outpace Congressional appropriations and administrative budget levels.
- Occasionally US EPA Regional Office and US EPA Headquarters programmatic interpretations differ, creating confusion for states and the regulated community.
- Federal performance measures drive state program operations – focus should be on outcome, not process.
- Even though US EPA’s regional office structure is designed to accommodate regional preferences, the US EPA Headquarters is perceived to be institutionally remote (removed) from the issues that are relevant to rural Kansas; especially less populated counties in the State.
- Actions and process focused on larger systems. There is not enough focus on smaller systems. This is perceived as an institutional bias against smaller water systems.
- There is insufficient coordination between federal agencies that also have responsibility for participating in the mission of providing safe water.
- Federal officials are perceived to be beholden to bureaucratic structures that reduce flexibility in assisting states and the regulated community in meeting national drinking water protection goals.

- US EPA’s unwillingness to reevaluate standards when science becomes available. US EPA Integrated Risk Information System (IRIS) database contains information suggesting public health would be adequately protected with nitrate levels up to 20 milligrams per liter.
- The lack of “trust building” activities of the US EPA has led to a distrust of the agency by local government entities. In addition, the agency is driven by the need to initiate enforcement actions (an internal measure of program effectiveness).
- Congress and US EPA may not fully understand the financial cost of regulatory compliance on water systems in Kansas. Kansas public water systems operate at a much smaller scale than those systems that seem to have the most input in the design and implementation of environmental statutes and regulations.
- Operations and the support of public water systems have traditionally not been viewed as a high priority within the US EPA.

*Regulatory Impairments:*

- The Mandates Relief Act of 1995 has had an insignificant effect on the issuance of new unfunded mandates for water systems. The impact of drinking water requirements on systems continues to be a burden that has not been relieved by the Act. The increased number of federal regulations (which are often viewed as unfunded mandates) and continuous changes in regulations and rules create difficulties for both State regulators and regulated systems.
- Science vs. Politics/cost-benefit analysis. Although recent progress has been made in crafting drinking water standards that are cost effective and efficient in protecting the public health, more work needs to be done in the area of providing common-sense information on the standards that are being promoted. Congress is concerned about the implementation of health-based regulations. However, the costs and benefits of those regulations need to be considered; especially in communities that face a variety of demands on limited budgets.
- Rules and regulations are promulgated by US EPA without complete consideration of the ability of states and local water systems to ultimately implement them. Mandated rules should be implemented with regard to the characteristics of the states. Risk based assessment of need for rule implementation in each state should be considered.
- The growing number and prescriptive nature of regulations are regulatory impairments.
- The Federal rulemaking process has limited small system input.
- State and local officials must often deal with the uncertainty associated with or arising from the process for adoption of drinking water rules and standards. The sequence of regulatory implementation – sometimes Federal regulations are imposed

prior to state action – do not allow the states enough time to react. Federal regulations are often proposed according to Congressionally mandated timetables without giving states the time to respond adequately prior to implementation.

- Federal regulations should be written to balance the technical requirements for establishing rules with the capability of water systems to assimilate the requirements into their operations and management. Size and complexity of regulations is a problem when resources are devoted to interpret rules to overcome the way they are written.
- The structure and language of drinking water rules are complex, difficult for the regulated community and customers to understand, and poorly communicated.
- US EPA’s health/risk calculations for new drinking water contaminants are often complex making it difficult for states and the regulated community to understand and explain. The seeming lack of sound scientific analysis in formulating regulatory standards is an impediment to State and local implementation. Thus, new contaminant rules and drinking water standards seem to be based upon politics as opposed to sound science.

*Financial Impairments:*

- Cost of monitoring and treatment for smaller systems.
- Requirement of matching funds for some projects.
- Public water systems in rural areas (such as Kansas) are burdened by federal Davis-Bacon Act requirements for payment of prevailing wage rates on construction projects financed in part or entirely by the HUD-funded CDBG program. The higher wage-rate requirements of the federal Davis Bacon Act create an additional financial burden to water systems seeking to make needed capital improvements. Local wage rates may be traditionally lower than those required under Davis Bacon.
- The US EPA drinking water needs survey indicates a significant need for capital financing resources. The current funding levels requested by the US EPA and approved by Congress are inadequate to meet funding needs. Federal grant and loan programs should be enhanced. In addition, the DWSRF program should be given a longer authorization/appropriation period by the Congress.
- Set-asides for capacity development and improvement (TFM) programs are tied to DWSRF capitalization. There is a need for more permanent funding for technical assistance activities for TFM.
- The US EPA does not provide adequate financial resources (in the form of the Public Water Supply Supervision grant) to the Water Supply Section to completely implement the State's expanded responsibilities under the SDWA.

- The Federal funding for the capitalization of the State’s DWSRF funding is inadequate to meet the demand for loans. Additional capitalization dollars, as well as grant funding for water systems that cannot afford to fully pay for capital facility improvements, should be provided. In addition, the lack of federal resources for State drinking water grants to address “old” unfunded and underfunded mandates is a problem.

*Tax Impairments:*

- Federal tax code limitations on private facilities financing through the use of private activity bonds are impairments to the acquisition of capital for needed improvements. Private activity bonds are used either entirely or partially for private purposes and are given federal tax-exempt status. Private activity bonds are advantageous because they offer private entities lower interest rates than they would otherwise be able to obtain; a government can use private-activity bonds to give economic incentives to targeted activities or geographic areas.

*Legal Impairments:* None noted for inclusion in *Report of Findings*.

*Other Impairments:* None noted for inclusion in *Report of Findings*.

***STATE FACTORS THAT ENHANCE OR IMPAIR PUBLIC WATER SYSTEM TFM CAPACITY***

State Enhancements to TFM Capacity

*Institutional Enhancements:*

- Kansas maintains a State water plan that is updated annually. A strong public involvement process is utilized which includes eleven-member advisory committees in each of twelve major river basins. The Kansas Water Plan includes policy recommendations on public water supply and other water management categories. The Kansas Water Authority approves the plan and makes annual recommendations to the Governor and the Legislature regarding implementation. A dedicated fund (the State Water Plan Fund) is available for implementing recommendations. Approximately \$16 million is available annually to implement the Kansas Water Plan.
- The Kansas Public Drinking Water Program has had a strong bias towards providing technical assistance and training to its regulated drinking water systems in order to achieve system compliance goals. This underlying bias toward assistance versus enforcement will improve the success of additional, strategic programs to improve TFM capacity.



- Information, education and training for community leaders from a variety of sources (KRWA, AWWA, KDHE, MAP, etc.). These provide for, or enhance the communication and education of community leaders. The commitment of these organizations to providing service and information to public water systems has created a strong matrix of assistance for regulated systems and a forum for partnerships to be developed between service providers.
- KDHE training – Numerous educational opportunities are available via AWWA, KRWA, MAP, the community college system, and others. These regional opportunities allow for training with minimal travel on the part of operators.
- The KDHE has the benefit of having a well-trained staff that is accessible, knowledgeable and friendly. The primacy agency exhibits a supportive “work with” attitude and is often willing to exercise “flexibility.” The KDHE cooperates with other stakeholders in promoting the common goal of providing safe drinking water to the public.
- Required certification and continuing education. The State of Kansas’s operator certification program helps to ensure that water systems have capable staff to meet the increasing complexity of requirements in providing safe drinking water to the public.
- The State laboratory is part of drinking water primacy agency (KDHE). This linkage provides additional technical capabilities within the drinking water protection program.
- Kansas has demonstrated TFM enhancements under Public Water Supply Loan Fund financial analysis/review – integrity contracts.

*Regulatory Enhancements:*

- Survival Guides: The Kansas Drinking Water Program has developed and distributed user-friendly guidance documents for water system officials. Examples include the *Total Coliform Rule Survival Guide*, the *Phases II & V Chemical Rule Survival Guide*, and *What Public Water Supply Manager/Operators Need to Know About Consumer Confidence Reports*.
- Mandatory operator certification – Kansas has a strong Operator Certification Program, which enhances capacity.
- KDHE has a reasonably good knowledge of upcoming regulations and involves and informs stakeholder organizations of the regulations while they are under development and also prior to their enactment. Field staff work well with systems on regulations.
- The 1986 SDWA Amendments allowed the creation of State-authorized programs for issuing monitoring waivers to public water systems. KDHE implemented the

monitoring waiver program through its rulemaking authority. Kansas’s monitoring waiver program, funded in part by system user fees has created significant cost savings for public water systems.

*Financial Enhancements:*

- Multiple funding sources provided by the Federal and State governments [e.g., DWSRF and Department of Economic Development (USDA-RD, HUD), etc.] are available to make difficult financing challenges more viable.
- KDHE Water Supply Section receives revenues from State-imposed quarterly operating fees paid by regulated water systems. This fee revenue partially supplements Legislative appropriations for Water Supply Section program activities.
- Kansas has provided significant financial and administrative resources for the coordination of important sources of capital financing for water system improvements through an informal advisory committee. This committee, KIAC (the Kansas Inter-Agency Advisory Committee), is an important State resource for building capacity. The “one stop funding” consultation process is also an excellent resource for water systems.
- Kansas has added \$5 million to capitalization with 4 to 1 leverage. This high leverage of Kansas DWSRF loan program funding is an enhancement.

*Tax Enhancements:*

- Tax exempt bonds are available to fund infrastructure projects in municipalities without an election [KSA 65-163u].

*Legal Enhancements:*

- The State of Kansas respects the authority of local governments and preserves that authority by recognizing the Home Rule provision of its Constitution (Article 12, Section 5.)

*Other Enhancements:*

- By emphasizing the need for TFM capacity, stakeholder organizations reinforce the relationship of TFM and successful operation of public water systems.

*Table B3: State Factors that Affect Water System TFM Capacity*

| Factors       | Enhancements | Impairments |
|---------------|--------------|-------------|
| Institutional | 8            | 5           |
| Regulatory    | 4            | 5           |
| Financial     | 4            | 1           |

|       |    |    |
|-------|----|----|
| Tax   | 2  | 4  |
| Legal | 1  | 1  |
| Other | 1  | 0  |
| Total | 20 | 16 |

## State Impairments to TFM Capacity

### *Institutional Impairments:*

- Duplication of services provided through State agencies for utilities or other State agencies – many departments have the same offerings/layers of bureaucracies. For example, Kansas water regulation is divided among several different agencies and leads to confusion within State government and for regulated entities.
- The KDHE has limited financial and personnel resources to provide technical support and training.
- Many small systems. Approximately 54% of Kansas’s water supplies serve populations of less than 500. It is difficult to provide Drinking Water Program information, training, and assistance to this large number of small water systems.
- The people of the State view water as a free resource and place little value on its use. Most people find it hard to believe that Kansas’s water is not always clean and drinkable.
- Improving TFM capabilities of public water systems will require additional resources for information, education and technical assistance programs. There is a lack of adequate funding for oversight activities in the financial and management capacity areas; the drinking water program does not have the resources and methods in place to adequately measure and assess the financial and management capabilities of public water systems subject to the TFM provisions of the SDWA. Current program resources and personnel are limited in this regard.

### *Regulatory Impairments:*

- Capacity development is impaired when regulated systems believe that corrective actions on their part are not absolutely required.
- Due to the complexity of drinking water system requirements, some water systems may have incomplete information about the body of regulations regarding the provision of safe drinking water. The current volume of rules, regulations, requirements and guidance relative to public water systems is difficult to master and they continually change.

- Regulations are very complex – many times regulators and assistance providers don't have complete and/or common knowledge of the regulation changes.
- Significant areas of the state are closed to further water appropriation. Municipal water supply development is a difficult problem where water appropriation is limited. This is especially a problem when locating new sources of supply. Present water rights are very restrictive and give no consideration to public health concerns.
- Water rights administration is complex and poorly understood by the public and by water system managers and operators.

*Financial Impairments:*

- No standard form of accounting is required of systems. Other financial management standards and requirements (such as periodic audit requirements) are needed. Water use and the performance water utility operations need to correspond to accounting information.

*Tax Impairments:*

- The lack of any exemption of State sales taxes for purchasing materials is an impairment to financial capacity.
- Nobody wants a tax increase.
- Public water systems are required to pay State sales tax on purchases (excluding chemical and utilities used in production). Private systems are tax-exempt from such purchases when using tax-exempt financing.

*Legal Impairments:* None noted for inclusion in *Report of Findings*.

*Other Impairments:* None noted for inclusion in *Report of Findings*.

***LOCAL FACTORS THAT ENHANCE OR IMPAIR PUBLIC WATER SYSTEM TFM CAPACITY***

Local Enhancements to TFM Capacity

*Institutional Enhancements:*

- The current regional and statewide meetings of various stakeholder groups (AWWA, KRWA, LKM) provide excellent opportunities for TFM capacity building.
- Funding for programs and activities that provide training and education at the local level (non-regulatory programs) are enhancements to capacity.

- Inter-local cooperation among rural utilities results in shared capabilities for meeting local service demands. The pattern of sharing equipment with other towns could lead to shared management or administration.
- Consumer Confidence Reports and public awareness campaigns.
- Kansas’ strong tradition of local control translates into better community understanding and commitment to addressing community needs, such as the provision of safe drinking water. Local recognition of performance heightens institutional commitment to provide efficient and effective local services. Local officials have a genuine concern for water quality – they drink the water they serve to their customers.

*Regulatory Enhancements:* None noted for inclusion in *Report of Findings*.

*Financial Enhancements:*

- The water system funding activities of many public water systems are regulated (locally “self-regulated”) by elected officials. Because of the political nature of setting fees and charges for water service, financing decisions are best handled locally by local officials. Elected officials have the authority to initiate financing for capital projects.
- Flexibility in making priority decisions.

*Tax Enhancements:*

- Local taxes help to support public owned systems.

*Legal Enhancements:*

- Constitutional Home Rule Authority (Article 12, Section 5), and municipal police powers through local ordinances and resolutions.
- Authority for rural water districts and public wholesale water supplies [K.S.A. 82a-615 et. seq. and K.S.A. 19-3545 et.seq.].

*Other Enhancements:*

- Local water systems exhibit characteristics for cooperation with other communities, agencies.

*Table B4: Local Factors that Affect Water System TFM Capacity*

| <i>Factors</i>       | <i>Enhancements</i> | <i>Impairments</i> |
|----------------------|---------------------|--------------------|
| <i>Institutional</i> | 5                   | 13                 |
| <i>Regulatory</i>    | 0                   | 3                  |

|                  |    |    |
|------------------|----|----|
| <i>Financial</i> | 2  | 8  |
| <i>Tax</i>       | 1  | 1  |
| <i>Legal</i>     | 2  | 0  |
| <i>Other</i>     | 0  | 3  |
| <i>Total</i>     | 10 | 28 |

*Local Impairments to TFM Capacity*

*Institutional Impairments:*

- Although municipal water suppliers with their own source of supply are required to report water use information to the State, public water systems who purchase their water from other suppliers, are not currently required to submit water use information.
- Many system operators do other things than just operate water systems.
- Lack of public awareness of the costs of water production, treatment and distribution. Generally, customers do not realize that water is a limited natural resource and that considerable financial resources are needed to produce and deliver it safely. The public expectation is that water be inexpensive although it is an essential product. Local policy-makers often seem to share this delusion and price water service inappropriately (in terms of meeting the full costs of delivering this commodity). There is a lack of public knowledge specific to the SDWA or the water industry as a whole.
- The ability to understand complex regulations and requirements is limited by lack of trained management personnel.
- Distrust of regulatory and stakeholder organizations by some water systems.
- Lack of communication between elected officials and employees of water systems.
- Not enough well-trained personnel to do a complete job; small systems cannot afford this personnel.
- Long-term viability of a water system is enhanced when communities and their respective governing boards recognize the most critical element to accomplishing this goal – a professional staff with the access to necessary resources and funding. Small communities often do not possess the resources for sustainability. In addition, there is high turn over in management.
- Unwillingness of local systems and towns to give up individuality and control.
- Turnover of elected officials and/or operators in small systems. Limited number of individuals willing to get involved with management. Often, management of the system is left to part-time officers and volunteers in small systems.

- Some water systems do not recognize the need to operate in a business-like fashion. There is a lack of planning and evaluation, poor financial management and budgeting (including capital budgeting), and a lack of training available for management. Management capacity of smaller water systems is negatively affected by high turnover of board members. A resistance to regulators prescribing how systems should be managed and operated also affects the acquisition of institutional capacity.
- Lack of understanding of Federal, State, and local agencies and responsibilities.
- General lack of willingness of public water system boards to plan for and finance long term improvements.

*Regulatory Impairments:*

- Local rules requiring employees to reside within the community.
- There is very little positive stimulus being put forward as to reasons the community should comply with regulatory requirements.
- Current limitations in training opportunities in the area of SDWA statutes, rules, regulations and guidance are an impairment to the ability of public water systems to maintain management capacity necessary for continued compliance with drinking water requirements.

*Financial Impairments:*

- Many systems cannot afford all the testing and regulatory requirements.
- Economies of scale are lacking for many small water systems.
- Difficulty in convincing board members and/or elected officials that the system needs to fully support itself with its revenue.
- Many water systems in Kansas lack financial resources and the knowledge of financial resource management. This current impairment to capacity could be overcome through training and technical assistance programs. Financial management capacity is limited in many small systems. This results in a lack of funds to hire staff, allow them time for training, etc.
- The lack of planning for current and future capital facilities is a significant impairment. Capital facilities planning has a direct effect on the TFM capabilities of public water systems. The failure to recognize necessary future improvements to the technical facilities due to expansion or regulatory requirements often results in water systems being ill prepared to react to the need for financial resources necessary to construct and operate their facilities.
- Cost of new treatment may exceed “reasonable” rate levels.

- Citizen pressure to “hold the line” on taxes (and user fees) is placed on public water system’s board members who are then reluctant to raise user charges to appropriate levels.
- Many water systems serve communities made up of “senior” citizens who are not interested in raising rates to support building a system in 10 – 20 years that they won’t be around to benefit from.

*Tax Impairments:*

- Limited and/or shrinking tax base in many communities.

*Legal Impairments:* None noted for inclusion in *Report of Findings*.

*Other Impairments:*

- Specific geologic conditions (radionuclides, arsenic, and sulfate) create special compliance problems for Kansas’s public water systems.
- The isolation of some communities from sources of equipment and supplies makes it expensive to operate a water system. Isolation from other water systems reduces the options for sharing equipment and makes it expensive for the operator.
- Local leaders seeking funding to make system improvements often do not understand what are appropriate engineering and other professional service fees to be charged for project development.



---

## **SECTION C: RECOMMENDATIONS ON HOW THE STATE CAN USE ITS AUTHORITY AND RESOURCES TO HELP WATER SYSTEM CAPACITY**

---

Following its work of identifying and discussing the factors that encourage or impair capacity development, the Capacity Development Workgroup directed its attention to forming a set of recommendations for program elements designed to address the need for improving the TFM capabilities of regulated public water systems. The Workgroup's recommendations take into consideration the following:

- *The program elements are suggested in response to significant TFM enhancements and impairments identified in Section B of this Report of Findings.* These program elements represent efforts the State of Kansas, its cooperating local governments and public, not-for-profit and private partners can undertake to improve TFM capabilities.
- Generally, the impairments to TFM are problems that need to be addressed by public water system regulators and the regulated community. The programs listed in this section of the report are suggested to overcome TFM capacity problems in public water systems.
- The suggested program elements are presented without specific schedules for implementation or ranking. The purpose of this section of the report is to present programs for improving TFM capabilities without regard to implementation demands. The program elements presented do not include specific recommendations regarding responsibility for implementation by the KDHE Drinking Water Program or other stakeholders. Ultimate responsibility for implementation of selected program elements remains with the KDHE as the primacy agency for the State of Kansas. However, it is expected that the KDHE will seek assistance from other stakeholders and service providers in improving the TFM capabilities of public water systems.

### ***PROGRAM RECOMMENDATIONS: FIFTEEN ELEMENTS FOR IMPROVING THE TECHNICAL, FINANCIAL AND MANAGEMENT CAPABILITIES OF PUBLIC WATER SYSTEMS***

1. TFM capacity building is an on-going issue – one that some providers have worked to help solve. What is needed is a statewide benchmarking, supported by a periodic TFM survey to generate information that can be used to identify general positive and negative trends developing with water systems in Kansas. The information could be ascertained from a Kansas Water Office's survey document. Such a survey would be mandatory, and questions would be designed to garner information about general trends regarding how systems respond to TFM. The purpose is to help the State identify how to best utilize limited technical assistance to help water systems.

2. Provide State lawmakers with an information package that explains the concept of TFM, and why Kansas is promoting capacity assessment and improvement for public water systems. The information package could include a final *Report of Findings*. In future informational transfer the KDHE could include periodic reports (similar to those sent to the Governor) regarding the performance of the strategic efforts.
3. Require all public water systems to submit a water use report annually to the Kansas Division of Water Resources.
4. The capacity development workgroup recommends that the KDHE investigate the feasibility of developing a water system “as built” mapping assistance program.
5. Develop TFM guidance development tools such as a business planning guidebook that a system can use to prepare for triennial TFM survey, or that can be used by a certified technical assistance provider to help a system complete the survey. For example, all guidance tools developed should be built around the seven (7) functions of capacity development: 1) capital improvement practices and plan, 2) management practices and planning, 3) operating practices and planning, 4) maintenance practices and planning, 5) budgeting practices and planning, 6) emergency and conservation planning, and 7) training practices and plans.
6. Water System Finance Training. Fiscal capacity and financial management are two of the key components of the financial capacity. Adequate funding of water system operations is essential to the current and future need to provide safe drinking water to the public. Annual review of rates is important to sustaining the fiscal health of the water system. Yet, the majorities of small water systems in the State of Kansas do not routinely review and adjust water service charges to keep pace with revenue demands. It is recommended that water system rate setting and financial management training and technical assistance be provided to water systems in order to improve financial and management capacity.
7. Several Workgroup members identified the need to encourage partnerships and communication between agencies and among systems. For example, local networking of water system operators and board members could result in the sharing of ideas on how to solve common problems, informal mutual aid agreements for use of equipment and personnel, and reduce the need for regulatory agency intervention.
8. The capacity development workgroup recommends actions to improve the general knowledge of drinking water issues among the public. The KDHE should work with stakeholder groups and others to provide sample information and “camera ready” pieces for informing water users and the public about drinking water costs and other pertinent issues.

9. Establish Requirements for Use of Water Metering Devices. Achieving and maintaining technical capacity of a water system is closely tied to managing the water resources available for public consumption. The usage of metering devices at the water source (e.g., wellheads or intake manifolds) enable water system managers to track overall system capacity performance. Financing the water system depends on customer charges based on individual water use. It is recommended that the State establish rules requiring use of water meters.
10. Review of Current Guidance Materials. The Kansas Drinking Water Program currently provides a variety of “survival guides” to all regulated public water systems. It is recommended that a specific user-friendly guide on statutes and regulations relative to public drinking water systems be produced and distributed. The purpose of the guide would be to provide "plain English" information on the Federal and State statutes, regulations, rules and guidance relative to the capacity requirements and all other requirements of the SDWA. The format should be both print and electronic. The key to the production and delivery of the handbook will be training sessions for water system operators, managers, consultants, and customers.
11. The capacity development workgroup recommends that the KDHE develop a training program designed to increase the capacity of water system board members to solicit appropriate engineering services for system expansion and improvements. This training would help board members in determining the need for and soliciting professional services for feasibility studies, a greater variety of engineering solutions for system requirements, consolidation and other economy of scale options, etc.
12. Assist systems in developing Facilities Management Plans. Such plans would first focus on preventive maintenance and establishing regular maintenance schedules. Second, plans would include repair/replacement guidelines for key components in a system such as meters, valves, and booster pumps. Third, the long-term sustainability of Kansas’ drinking water systems requires that they plan for investment in their physical facilities. All systems would be encouraged to meet either a specified debt coverage or operating financial ratio that results in the accumulation of sufficient reserves so a system can make an internal investment in major future improvements. A large system will accumulate a larger amount of reserves than a smaller system, but some funds will be available for self-investment. The DWSRF should be considered as a source of funding for developing guides for the preservation strategy concept.
13. Proactive Distribution of Information. The State Drinking Water Program should provide information to public water systems that is proactive, accurate, and understandable. In running their operations like businesses, it is important for public water system managers to know about prospective changes in statutes and regulations that have a direct bearing on their TFM capabilities. There are benefits associated with water systems knowing about important changes in statutes and regulations; in providing

operators, managers, board members and the customers with understandable time lines for regulatory implementation; and, for "common sense" interpretations and guidance on important public water system requirements. The capacity development workgroup suggested the creation of a periodic newsletter. The newsletter would be provided to each water supply by the KDHE. In addition to periodic information transfer, the capacity development workgroup has suggested that the KDHE provide a concise CCR-style report that would include an accounting of how the annual water supply fees were spent in addition to a summary of annual compliance data and KDHE activities.

14. For a number of years, the Water Supply Section of KDHE has been burdened with having to deliver a State Drinking Water Protection Program with limited resources. The scope of the Drinking Water Protection Program has been dramatically increased because of the last two amendments to the Safe Drinking Water Act in 1986 and 1996. The perception of the capacity development workgroup is that personnel resources have not kept pace with the new responsibilities of the State program. The capacity development workgroup recommends that a third-party assessment of current and future program resource needs provide information needed to overcome this perception and allow the capacity development workgroup and other stakeholders to support the financial and staffing resource needs in the Drinking Water Program. The capacity development workgroup recognizes that the proper implementation of a TFM Capacity Development Strategy is tied directly to the availability of program resources. The workgroup, as concerned stakeholders, believes that it (as well as the public) should be involved in examining existing program resources and what supplements might be needed to implement the Strategy.
15. The capacity development workgroup made special note of the turnover of water system board/council members. High member turnover in small systems results in a loss of managerial capacity (and continuity). Unfortunately, this occurs as the drinking water regulatory environment becomes more complex. The capacity development workgroup recommends the development of supplemental training materials for new board/council members that would help them understand their role in the oversight of the water system, and in helping their system acquire and maintain TFM capacity. These training materials could also be used in training events offered by other organizations.

## **SECTION D: MEASURING THE SUCCESS OF KANSAS' CAPACITY DEVELOPMENT STRATEGY**

This *Report of Findings* offers the Workgroup's suggestions about how the Kansas Department of Health and the Environment (KDHE) might develop a strategy for improving the technical, financial and managerial capabilities of public water systems. In developing that strategy, the Workgroup suggests that KDHE measure the success of its capacity development efforts in three ways:

### 1. Compliance Tracking

In accordance with the prioritization scheme presented in Section A, the first criterion in selecting water systems for attention under the Capacity Development Strategy is compliance history – the assumption is that a history of non-compliance reflects a lack of capacity. KDHE should consider tracking the compliance of systems that are chosen for assistance under the Strategy. Statewide trends in compliance, such as might be indicated by the triennial report to the US EPA on systems with a history of non-compliance, are complicated by a large number of contributing factors which may not relate to system capacity. System-specific compliance tracking will more accurately measure the effectiveness of the capacity building efforts carried out under the Strategy.

### 2. Outreach and Assistance

KDHE should keep careful records of assistance programs aimed at assisting water systems in improving capacity. The Workgroup has recommended a range of efforts of this kind in Section C of this report. Examples include, but are not limited to:

- a) Number of performance evaluations conducted.
- b) Site visits for technical assistance (number and type of assistance rendered).
- c) Number of water systems that complete self-assessments of capacity. Comparison of assessments taken before and after receiving assistance would be particularly useful.

A count of the activities carried out under the Strategy is an indicator of the magnitude of the effort, but only indirectly a measure of effectiveness. Whenever possible, the KDHE should follow capacity assistance efforts with some type of system specific assessment at a later date to determine if the assistance was effective and the results that were obtained had lasting value.

The US EPA State Drinking Water Information System would be a good place to track capacity assessments, assistance, and follow-up efforts. A consumer survey could be developed for use in soliciting feedback from systems that have received assistance under the

Capacity Development Strategy. This survey would be mailed to the system within a few weeks of the time that assistance was given. Results from these surveys, and from other tracking activities, would be used to modify the Strategy over time, placing emphasis on those elements that are successful and trimming activities that prove to be less useful.

### 3. Planning Activities

The number of water systems that prepare capital facility management plans, business and/or financial plans or complete capacity self-assessments each year would be a good indicator of the success of the Strategy because it would reflect growing knowledge about, and interest in, capacity issues on the part of public water systems in the State.

---

## SECTION E: PUBLIC INVOLVEMENT IN PREPARING THE KANSAS CAPACITY DEVELOPMENT REPORT OF FINDINGS

---

The KDHE called upon its Capacity Development Workgroup to provide a sounding board on issues for developing a set of findings for improving capacity that could then be presented to the general public. Workgroup members, by combining their varied backgrounds and different perspectives deliberated to ensure that the group's *Report of Findings* would be balanced and comprehensive.

However, the Workgroup could not possibly encompass in its membership all organizations and individuals within the State who might have an interest in this subject. In its first meeting, the Workgroup examined the question of who else should be involved in the process of preparing a drinking water capacity development strategy. They concluded that certain key interest groups, beyond those already represented, should be encouraged to participate with the Workgroup if at all possible. Additionally, other interested persons and organizations were invited to provide information regarding their position through an interview process or in writing. Finally, the public at large was engaged to the greatest extent possible through a series of public involvement initiatives. A questionnaire was developed to facilitate public input.

### Other Public Involvement Initiatives

Several efforts were made to present the *Report of Findings* to the public and gather their comments. These efforts include:

- a presentation of the *Report of Findings* at the Kansas Rural Water Association conference at Wichita in march, 2000;
- Posting the *Report of Findings* on the KDHE web site;
- Mailing the *Report of Findings* to all public water supply systems in the state;
- Holding public meetings at Garden city, Wichita, Topeka, and Hays in June, 2000 to discuss the *Report of Findings*; and
- Issuing a statewide press release announcing the availability of the *Report of Findings* either on the KDHE web site or from KDHE, and announcing the series of public meetings.

The public provided no comments on the *Report of Findings* following these efforts.

---

## **APPENDIX A: CAPACITY DEVELOPMENT WORKGROUP MEETING NOTES**

---

The Capacity Development Workgroup met eight times during 1999 and 2000 to consider developing a capacity strategy for public water systems. During the month of March 2000 the draft of the Kansas Capacity Development *Report of Findings* was prepared using input from Workgroup members, Department of Health and the Environment management, and public comments.

### **Highlights of the Kansas Capacity Development Workgroup Meetings**

*March 19, 1999*

Bill Jarocki explained to the Workgroup that the Environmental Finance Center at Boise State University assists States in capacity development. He presented an overview of the capacity development program and distributed handouts. A brainstorming of the Kansas Capacity Development Strategy then ensued. A draft timetable and strategy schedule dates were determined. A short discussion then took place on the relevant information available at this time, which was determined to be demand information, compliance information, monitoring violations, 18 months, and municipal finance records.

*April 16, 1999*

The meeting began with a discussion of what capacity is. The State of Kansas had compliance information, but it was determined that vulnerability, Kansas Water Office assessment, and Watershed Regional Assessment Program information were also needed. The Workgroup then began work on Section 1420(c)(2)(A), the methods or criteria that the State will use to identify and prioritize those public water systems most in need of improving TFM capacity. A matrix was designed using systems in significant noncompliance as the primary determining factor. Next would be health risk, followed by population, and then TFM analysis. A matrix was then created to determine “Bigger Problems” vs. “Smaller Problems” and how they would be solved. Population would be the first factor, followed by how cooperative the system was, followed by TFM analysis to identify the problem, and a solution.

An input identification problem was also discussed. “Triggers” that determine the need for TFM system review and solutions were identified. A matrix for Section 1420(c)(2)(B) – factors that enhance or impair capacity at the Federal, State, and local level – was introduced to the Workgroup.

*May 6, 1999*

A modern governance board matrix was introduced using the acronym *POSCERV*, which encompasses Planning, Operations, Staffing, Communications, Evaluation, Resources (\$), and Vision for TFM. The Workgroup then moved on to discuss Section 1420(c)(2)(C) – a



description of how the State will use the authorities and resources of the SDWA or other means to assist public water systems in compliance efforts, encourage partnerships between supplies to enhance the TFM viability of the systems, and assist supplies in the training and certification of operators.

*July 15, 1999*

The Workgroup resumed its discussion of 1420(c)(2)(C), and identified 7 programmatic responses: “Legitimize” cooperative approaches to providing drinking water; Coordinating financing agencies; Water Plan; Training for local decision makers; Develop financial management tools/training; Customer communication and the strategic use of Consumer Confidence Reports; and Assist in source water protection at local level. The Workgroup then discussed Kansas capacity criteria for new systems with financial and management capacity indicators/measures being identified.

*September 21, 1999*

The Workgroup finished discussion of the review process for assuring new public water supply systems demonstrate the TFM capability of complying with drinking water regulations prior to beginning operation. The Kansas Public Water Supply Permit application form was modified to address managerial and financial aspects of utility management. Workgroup discussion then centered on the approach to be used for Section 1420(c)(2)(A), to identify and prioritize water systems in need of TFM assistance. Representatives of the Kansas Water Office discussed the Kansas Water Plan recommendations concerning water system capacity (viability), in particular use of a standard questionnaire to aid in identification of systems in need of assistance. A subgroup was assigned to continue development of the questionnaire.

*November 18, 1999*

The Workgroup focused its discussion on Section 1420(c)(2)(B), the Federal, State, and local institutional, regulatory, financial, tax, legal, and other enhancements and impairments to the ability of a water system to comply with drinking water standards. Boise State EFC staff had prepared a compilation of enhancement and impairment factors from other states for the Workgroup to review. The Workgroup reviewed this compilation, rejected some factors, modified others, and added many Kansas specific factors to the listing. The Kansas Water Office provided an update on the status of the capacity questionnaire.

*December 17, 1999*

The Workgroup continued discussion on 1420(c)(2)(B) enhancement and impairment factors. Staff from the EFC provided a draft prepared following the November 18 discussion, which was further reviewed and edited. A compilation of other state recommendations on how to

use the authorities and resources of the Safe Drinking Water Act, 1420(c)(2)(C), prepared by the EFC, was reviewed for applicability to Kansas. Several workgroup members provided their specific recommendations, which were reviewed and discussed by the group. The Kansas Water Office distributed the draft capacity questionnaire to the workgroup.

*January 13, 2000*

The final draft of the Federal, State, and local institutional, regulatory, financial, tax, legal, and other enhancements and impairments to water system capacity was reviewed and given a final edit. The Workgroup then reviewed the draft Section 1420(c)(2)(C) recommendations to continue existing enhancements to TFM capacity and to overcome impairments to capacity. It was agreed these two components of the strategy were ready for public review, after incorporating the workgroup comments. Options for presenting the Report of Findings to the public were discussed, and included the Kansas Water Authority Basin Advisory Committees and the annual conference of the Kansas Rural Water Association.

## **Appendix 2**

### **State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems**

## **Appendix 3**

### **State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems, Amendment 1**

**State of Kansas  
Capacity Development Strategy**

**for**

**Existing Public Water Supply Systems**

**Kansas Department of Health and Environment  
Division of Environment  
Bureau of Water**

**August 1, 2000**



## Table of Contents

|  |   |
|--|---|
| <b>Preface</b>   | i |
| <b>Part 1-Kansas's Capacity Development Strategy</b>                                     |   |
| A.    Introduction   | 1 |
| B.    Public Involvement   | 1 |
| C.    The Five Required Elements   |   |
| C.1.    Methods or criteria to prioritize  | 2 |
| C.2.    Factors which enhance or impair  | 3 |
| C.3.    Use of authority and resources   | 3 |
| C.4.    Baseline and improvements  | 5 |
| C.5.    Public input   | 6 |
| D.    Rationale for the Strategy   | 6 |
| E.    Resources  | 7 |
| F.    Implementation Schedule  | 7 |
| G.    Future Plans   | 9 |
| <b>Part 2-Report of Findings of the Capacity Development Citizens Advisory Workgroup</b> |   |

## Preface

This document is a demonstration of how the State of Kansas, Kansas Department of Health and Environment (KDHE) plans to implement a strategy to assist existing public water systems in improving their technical, financial, and managerial (TFM) capabilities. This initiative is a requirement imposed by the 1996 Amendments to the Safe Drinking Water Act (SDWA) on all states that wish to receive full funding from the Environmental Protection Agency (EPA) for their drinking water revolving loan programs. Section 1420 of the SDWA specifies five elements that a state must consider when preparing a strategy for helping existing public water systems to improve their TFM capacity. States are required to submit their strategies to EPA for review by August 6, 2000.

The State of Kansas is committed to improving the TFM capabilities of its public water systems. Each year, the Kansas Water Office prepares a comprehensive State Water Plan for the management, conservation, and development of the water resources of Kansas. The Public Water Supply Policy Section of *The Kansas Water Plan for FY 2002* contains the following objective: “By 2010, ensure that all public water suppliers have the technical, financial, and managerial capability to meet their needs and to meet Safe Drinking Water Act requirements.”. The Water Plan was approved on July 13, 2000, by the Kansas Water Authority.

In March of 1999, KDHE convened a Citizen’s Advisory Workgroup to advise the agency on how it should approach the SDWA capacity development provisions. This workgroup was composed of persons who represented a wide variety of groups with an interest in drinking water issues. Those persons who chose to participate in the process did so enthusiastically. Part 2 of this strategy contains the Workgroup’s *Report of Findings*. The Workgroup’s meetings were led by Bill Jarocki of the Boise State University Environmental Finance Center.

The *Report of Findings* is the basis for this Capacity Development Strategy. It describes in detail how the five elements required by the SDWA were considered in the course of the Advisory Workgroup’s work. It provides fifteen specific recommendations to KDHE on how the agency and state can assist public water systems in improving TFM capacity.

Part 1 of the strategy is a discussion of KDHE’s consideration of the Advisory Workgroup’s findings. It lists the recommendations that were chosen for implementation and the rationale behind those choices. It also discusses the resources that will be applied and the timetable that will be followed in implementing the Kansas Capacity Development Strategy.

## **Part 1–Kansas’s Capacity Development Strategy**

### **A. Introduction**

The *Report of Findings* submitted by Kansas’s Capacity Development Citizens Advisory Workgroup is a comprehensive document which provides a clear discussion of the five elements that a state is required to consider when preparing a Capacity Development Strategy. Part 1 of this document will provide a description of the process and rationale by which KDHE used the Workgroup’s recommendations to assemble a Capacity Development Strategy for the State of Kansas. The *Report of Findings* is included as Part 2 of the strategy.

### **B. Public Involvement**

The Citizens Advisory Workgroup was the primary means for obtaining public involvement in developing a strategy. The Workgroup members represented a wide array of interests and brought their viewpoints and their associate’s viewpoints to the discussion. The work of the workgroup established a new level of public participation in an important element of the Kansas Public Water Supply Program.

KDHE undertook several actions intended to gain review and comment on the *Report of Findings* by the broader public. KDHE issued a statewide press release announcing the availability of the Workgroup’s *Report of Findings* and requesting public review and comment. The press release noted a copy of the *Report* could either be requested from KDHE or downloaded from the KDHE web site. A copy of the *Report* was also mailed to all of the state’s community public water supply systems with a request for review and comment. In addition, the *Report* was discussed during public meetings held in June at Garden City, Wichita, Hays, and Topeka, and at the March convention of the Kansas Rural Water Association. Announcement of the meetings was made in the press release and in the letter transmitting the *Report* to the water systems. No comments were received from the general public following these efforts.

The state’s official water planning document, *The Kansas Water Plan*, includes an objective for the year 2010, for all of the state’s public water supply systems to demonstrate the technical, financial, and managerial ability to meet their needs and comply with drinking water standards. *The Kansas Water Plan* has been adopted by the Kansas Water Authority, which includes among its members individuals representing state agencies, water systems, other groups with an interest in state water issues, and the general public. *The Kansas Water Plan* was also reviewed by twelve 10-member Basin Advisory Committees, which were established by the Kansas Water Authority to gather public input on the *Water Plan*.

It is possible the general public and water systems have been deluged by requests from KDHE and other state agencies to review and comment on various initiatives, programs, and regulatory



packages. KDHE and other agencies have become more progressive in soliciting public involvement and input into their regulatory and technical assistance programs. Several representatives of stakeholder groups expressed their frustration with the challenge of keeping up with these agency requests for review and comment. It is expected interest from the public and from water systems will increase as the Strategy is implemented and assistance efforts begin to have a direct impact on systems and their customers.

### **C. The Five Required Elements**

The SDWA requires the State to consider five elements when preparing its strategy:

1. Methods or criteria to prioritize systems in needing TFM assistance,
2. Factors operating in the State which enhance or impair TFM capacity,
3. How the State will use the authority and resources of the SDWA to help water systems improve their TFM capacity,
4. How the State will establish a capacity baseline and measure improvements, and
5. How the State will identify persons interested in Capacity Development and receive their input.

The Citizens Advisory Workgroup considered these five elements in detail and the results of their deliberations are included in the *Report of Findings* contained in Part 2 of this Strategy. This section of the Strategy will be limited to how KDHE evaluated the Workgroup's findings in these five areas and its decisions on which elements to include in the final Strategy.

#### **C.1. Methods or criteria to prioritize systems needing TFM assistance.**

KDHE will adopt the scheme developed by the Advisory Workgroup, which is discussed on pages five through seven of the *Report of Findings*. Since one of the objectives of the capacity program is to assist water systems in complying with drinking water regulations, systems in violation of the regulations, are obvious candidates for assistance. The Workgroup recommended KDHE look beyond its own compliance data, however, to identify systems in potential need of assistance. Information from other state agencies, third party technical assistance providers, consulting engineers, and customer complaints will all be used to identify water systems potentially in need of assistance. Technical assistance which helps a water system avoid a compliance problem is just as valuable as assistance which resolves an existing compliance problem.

The Workgroup recommended use of a water system survey to gather information which could be used to identify systems in need of assistance. The concept of a TFM survey is included in the *Kansas Water Plan* and will be adopted by KDHE. It is anticipated information collected from these surveys will be invaluable in targeting systems for assistance. KDHE will proceed with adoption of administrative regulations requiring participation in the TFM surveys by water systems.

The purpose of a prioritization scheme is to target assistance efforts in a manner that recognizes

resource limitations. In the longer term, it is hoped TFM assistance will be available to any water system with a need and a willingness to cooperate with KDHE or other assistance providers.

### **C.2. Factors operating in the State which enhance or impair TFM capacity.**

The Advisory Workgroup committed a significant amount of time to delineating these factors. In its review of all factors identified, the group selected a subset for consideration when developing the fifteen recommendations listed on pages 23 through 26 of the *Report of Findings*. Several factors, such as those requiring changes in national legislation or those which are more resource intensive, are not included in the fifteen recommendations. Those factors remain in the *Findings Report* for future consideration if an opportunity for meaningful input presents itself, or if the resource picture changes.

KDHE studied the factors listed in the *Findings Report* and concurred with the Workgroup's choices of those which improve capacity development efforts in the immediate future.

### **C.3. How the State will use the authority and resources of the SDWA to help water systems improve their TFM capacity.**

The SDWA requires the state to apply its authorities and resources in three general areas.

1. *Assist systems in complying with the national primary drinking water regulations.* All of the selected recommendations will enhance the ability of water system managers and operators to understand and comply with the regulations. The prioritization scheme chosen to target systems for TFM assistance will emphasize systems experiencing compliance problems.
2. *Encourage the development of partnerships between public water systems.* Recommendation number seven of the *Findings Report* identified the need to encourage partnerships and communications between agencies and among water systems. Although this recommendation was not chosen by KDHE for immediate pursuit in the implementation of its capacity strategy, this issue will receive attention through the Public Water Supply Policy Section of *The Kansas Water Plan*, which calls for development of a regional public water supply assistance program. Under this initiative, the Kansas Water Office will adopt guidelines for the development of regional water supply strategies, and develop a program to provide financial, technical, and planning assistance to water suppliers interested in developing a regional strategy.
3. *Assist public water systems in the training and certification of operators.* KDHE and other Kansas technical assistance providers have conducted a strong operator training and certification program for years and will continue to do so. The recommendations selected for implementation will benefit operator training efforts directly, and will

also provide support for operator training and certification by better informing water system managers of the requirements their water systems and their operators are required to meet.

The *Findings Report* lists fifteen recommendations for KDHE to consider in implementing a Capacity Development Strategy. KDHE will pursue eight of these recommendations in the initial implementation of its strategy, as discussed below.

- 1) TFM surveys. The workgroup suggested mandatory surveys to establish a TFM benchmark, and to make periodic assessments of water system TFM progress. The survey concept is also supported in the Public Water Supply Policy Section of the *Kansas Water Plan*. KDHE legal staff have provided an informal opinion that the agency has adequate statutory authority to adopt regulations requiring public water supply systems to participate in a TFM survey. KDHE will pursue adoption of regulations requiring participation in TFM surveys every three years.
- 2) Water use reports. The workgroup recommended all water systems be required to submit annual water use reports. Currently, water systems who purchase their water from another public water supply system are not required to submit annual water use reports to the Division of Water Resources. KDHE will approach the Kansas Water Office and the Division of Water Resources about seeking any additional statutory authority necessary to require reports from all water systems.
- 3) Business planning guidebook. The workgroup recommended development of TFM guidance tools such as a business planning guidebook which could be used to water systems to prepare for completion of the triennial survey. KDHE agrees this material would be useful to water system managers.
- 4) Water system finance training. The workgroup identified the need for training to assist water system managers in setting water rates and in financial management. KDHE also agrees this recommendation is important to improving water system capacity.
- 5) Water meters. The workgroup recommended all water systems be required to meter their customers for water use. Some Kansas water systems charge a flat water rate and do not meter their customers for actual consumption. KDHE will approach the Kansas Water Office and the Division of Water Resources to determine if enabling legislation is needed to require use of water meters, or if either agency has the authority to require metering already.
- 6) Review current guidance materials. The workgroup recommended KDHE expand its series of regulation specific “survival guides” to include federal and state statutes and regulations applicable to public water systems. KDHE agrees these survival guides are useful in providing plain English information to water system managers and will adopt this recommendation.

- 7) Facilities Management Plans. The workgroup thought guidance on the value of preventive maintenance and preparing regular maintenance schedules, equipment replacement schedules, and the importance of meeting specified debt service coverage ratios and financial operating ratios to accumulate cash reserves was important to the capacity concept. KDHE agrees and will pursue this recommendation.
- 8) Board/Council Member Training. The workgroup took note of high turnover rates in city council and rural water district board members. The high turnover rates result in a loss of managerial capacity and continuity. KDHE agrees with the recommendation to develop training materials for new board/council members to help them understand their role and meet their responsibilities.

The remaining seven workgroup recommendations are not being discarded or ignored. KDHE recognizes implementation of a capacity strategy is a long term commitment. As the capacity assurance program develops, these recommendations will be considered along with other capacity limiting factors that will surely emerge. The availability of resources to implement the workgroup recommendations is a major factor in choosing which recommendations to adopt. Several of the activities chosen for initial implementation can be accomplished by contracting with service providers outside the agency. These service providers are available within the state and area and should provide excellent support for the capacity development program. Also, many of the impairments to water system capacity dealt with the knowledge possessed by water system operators and managers. Improvements in these areas have the potential to generate significant capacity gains in a relatively short time.

#### **C.4. How the State will establish a capacity baseline and measure improvements.**

KDHE will adopt the three recommendations in the *Report of Findings*, and use one additional tool to establish a water system TFM baseline and measure improvements. The *Report* included the following three recommendations.

- 1) Compliance tracking. Since one of the primary goals of a capacity development program is to help water systems comply with drinking water regulations, violations of regulations are an obvious assessment tool. The number of water systems in significant non-compliance and the triennial report on water systems with a history of non-compliance required by the SDWA, will be used to monitor trends in compliance.

It is important to realize that absolute compliance numbers may not deliver a completely accurate picture of capacity improvements when drinking water regulations are becoming more stringent. A water system with adequate TFM capabilities will ideally anticipate changing regulations, plan necessary improvements, make financing arrangements, and complete any necessary

construction ahead of the compliance deadline. However, there are significant changes occurring in several drinking water regulations whose cumulative impact may stretch the ability of even well managed, financed, and operated water systems to remain in compliance. These increasingly stringent regulations must be considered when reviewing absolute compliance numbers.

- 2) Outreach and Assistance. This involves tracking the number of capacity related site visits on an annual basis. KDHE will also use its periodic inspections or sanitary surveys to measure TFM gains.
- 3) Planning Activities. KDHE will track the number of water systems engaging in capital planning, business or financial planning, and self assessment activities.

The periodic TFM survey will also be essential in establishing a baseline of water system capacity in the state of Kansas, and in measuring capacity gains. In fact, much of the information on planning activities, can be collected through this survey. KDHE will adopt regulations requiring participation in the TFM surveys on a triennial basis.

In addition to establishing a baseline and measuring capacity gains, the surveys will be useful in identification of issues where a number of systems could benefit from training.

**C.5. How the State will identify persons interested in Capacity Development and receive their input.**

KDHE believes the Citizen’s Advisory Workgroup did an adequate job of identifying persons and interest groups expected to have an interest in public drinking water issues. Although some invited parties did not participate in the discussions, a broad spectrum of interest groups was given the opportunity to do so. Similarly, KDHE believes an adequate effort was made to inform the public of the Workgroup’s *Report of Findings* and to gather input. KDHE will continue to make information about capacity development efforts available to the public through the KDHE web site, association newsletters, press releases, and workshops.

**D. Rationale for the Strategy**

All five of the SDWA required elements are included in the Kansas Capacity Development Strategy.

1. The strategy uses a prioritization scheme which centers on water system compliance and information collected from mandatory TFM surveys.
2. The recommendations chosen for initial implementation are a direct result of an analysis of the factors that either enhance or impair water system capacity in Kansas.
3. KDHE will use funding available to the state through set-asides from the revolving loan fund

capitalization grants to support the costs of the program.

4. KDHE will measure individual water system responses to capacity assistance efforts and will track overall compliance trends within the state. The mandatory, periodic TFM survey previously discussed will also be used to evaluate progress in water system capacity and to identify areas for further efforts. KDHE will track other specific activities carried out under the strategy.
5. KDHE has encouraged public participation and involvement in the preparation of this capacity development strategy and will continue to do so during its implementation.

Implementation of this strategy will provide lasting benefits to existing public water systems by expanding and targeting training as needed to improve the knowledge base of water system operators and managers.

#### **E. Resources**

As mentioned in Section C.3., page five, KDHE lacks permanent staff to dedicate to developing the training documents and programs recommended by the Workgroup to implement this strategy. Resources needed to fully implement the capacity program will be considered in Department efforts to develop a stable, long term mechanism for meeting the resource needs of the drinking water program.

KDHE will prepare descriptions of various products needed for the strategy and seek proposals from suitable service providers for development and delivery of these products. KDHE has interviewed for an unclassified, special project officer (Environmental Scientist) to begin implementation of the strategy. The employee will also review the many excellent TFM materials being developed around the country for potential adaption to the Kansas program.

Funding will be provided by an annual set-aside from the Kansas capitalization grant for the drinking water revolving loan fund. KDHE has reserved \$485,000 from each of its first four capitalization grants for a total of \$1,940,000, to support the capacity development program. A decision whether to add to this significant sum of money from future capitalization grants has not been made. Any funds reserved for capacity development and not used may be returned to the loan fund.

Work plans and budgets for use of the set-aside funds will be prepared following EPA's review of this strategy. Increasing workloads on the drinking water program resulting from several new primary drinking water regulations recently adopted and scheduled for adoption during the next few years, may divert support for the capacity development program from permanent staff to contract service providers.

## F. Implementation Schedule

This Section describes how KDHE will pursue implementation of the eight workgroup recommendations discussed in Section C.3. As discussed in Section C.3 and Section E above, a lack of resources prevents KDHE from pursuing all fifteen of the workgroup recommendations. Several of the selected recommendations are suitable for assistance from outside service providers.

**TFM Surveys.** Mandatory TFM surveys are a key component of the Kansas Capacity Development Strategy. The surveys will provide a benchmark of water supply TFM capacity, and will allow the state to make periodic measurements of water supply TFM gains. Implementation of this recommendation has two key components, adoption of administrative regulations requiring public water supply participation in the survey, and completion of the survey form. Development of the TFM survey form has already begun. Joint discussions with the Kansas Water Office, Kansas Rural Water Association, Kansas Rural Water Finance Authority, and KDHE resulted in a draft TFM Survey Form. Field testing began in April 2000 when the KWO mailed copies of the Draft Form to all public water supply systems in Shawnee County. At the end of June 2000, the response rate was approximately 50%. Comments from the water suppliers and the form responses will be used to refine the Survey Form. It is important to develop a Survey Form which will remain relatively stable for subsequent years, since it will be difficult to measure progress against the initial TFM baseline if significant changes in the Survey Form are made at a later date.

KDHE will take the following actions to place the regulation into effect.

- |                      |              |
|----------------------|--------------|
| • Regulation drafted | Fall 2000    |
| • Regulation final   | June 2001    |
| • First surveys due  | January 2002 |

The Survey Form will be completed by June 2001, when the regulation becomes effective.

**Water Meters and Water Use Reports.** Implementation of these two recommendations (#3 and #9) will take place concurrently. Cooperation and action from other state agencies will be needed to require water systems who purchase their water from another public water supplier to complete annual water use reports and to require water systems to meter their customers. KDHE will raise these issues in the fall meetings of the Kansas Water Office Public Water Supply Technical Advisory committee, which are attended by representatives of the Division of Water Resources, Kansas Water Office, and KDHE, among others. The necessity of seeking statutory amendments will also be discussed.

**Water System Training Materials.** Recommendation numbers five, six, ten, twelve, and fifteen all deal with the development and delivery of training materials to water system operators and managers, and will be grouped together for the purposes of implementation.

Recommendations for some or all of these training materials will likely be common to many state

capacity development strategies. Rather than attempting to develop each of these components independently, KDHE will prepare a request for proposals to catalogue information and training tools developed by other states, EPA, Environmental Finance Centers, and other assistance providers such as rural water associations and regional community assistance providers (RCAP). These training tools will be reviewed for adaptability to Kansas. Where possible, the Kansas Capacity Program will take advantage of already existing materials in lieu of developing training materials from scratch. When pre-existing training materials are not available, additional requests for proposals will be prepared for appropriate documents. A tentative schedule to review existing materials and develop needed materials is provided below.

- Develop RFP to catalogue and review existing materials      Fall 2000
- Execute contract      Spring 2001
- Delivery of Report      Spring 2002
- Develop RFP for remaining materials      Summer 2002
- Execute contracts      Fall 2002
- Delivery of training materials      Fall 2003

**G. Future Plans**

Information gathered from the mandatory TFM surveys will be used to identify capacity shortcomings which occur frequently enough to develop training tools not already identified and under development. Results from the initial round of surveys will be available in the year 2002. KDHE will continue to utilize the citizen advisory workgroup organized for preparation of this strategy, to provide ongoing guidance in the initial stages of program development. Implementation of the Capacity Development Program will also receive input and review from the Kansas Water Authority through its oversight of the Kansas Water Plan.



**State of Kansas  
Capacity Development Strategy**

**for**

**Existing Public Water Supply Systems**

**Amendment 1**



**Kansas Department of Health and Environment  
Division of Environment  
Bureau of Water**

**State Fiscal Year 2007**

## **Introduction**

The Kansas Capacity Development Strategy for Existing Public Water Supply Systems was approved by the U.S. Environmental Protection Agency in September 2000. This Amendment to the Strategy modifies some of the original 15 recommendations made by the Capacity Development Workgroup to the Kansas Department of Health and Environment (KDHE). In most instances these modifications involve only minor changes that reflect more accurately how KDHE is implementing the Existing Public Water Supply Systems Strategy. Only the recommendations that are changed or removed are discussed in this Amendment. The original recommendation is shown in regular font and the change is in italics.

In addition to the modifications to the original recommendations, KDHE added one new program to the Capacity Development Strategy for Existing Systems during State Fiscal Year 2007. This program is the Capacity Development Achievement Awards and is discussed at the end of this document. For additional information on the Awards Program please refer to the KDHE Capacity Development Webpage: <http://www.kdheks.gov/pws/capdev.html>

## **Changes to the Strategy for Existing Public Water Supply Systems**

1. Statewide benchmarking that can be used to identify general positive and negative trends developing in Kansas water systems. The Kansas Water Office in conjunction with other agencies and technical assistance providers will create a voluntary survey designed to incorporate TFM criteria. The results will help the State analyze how to utilize limited technical assistance to best aid water systems. Initial discussions were that the survey would be conducted on a voluntary basis. After further discussion, the workgroup agreed that the survey should be mandatory and that the survey should be repeated every three years.

*Change: The Kansas Department of Health and Environment (KDHE) and the Kansas Water Office agreed that KDHE should conduct the surveys. The KDHE conducted surveys in 2002 and 2005 with a response rate of 97% in both years. Based on this response rate, the KDHE has determined that a regulation requiring mandatory completion of the survey is not necessary.*

2. Provide State lawmakers with an information package detailing TFM and why the State is promoting capacity assessment and improvement for public water systems.

*Change: The Report to the Governor provides information regarding the Capacity Development Strategies for the State of Kansas. A separate information package for lawmakers would be redundant. The KDHE will make the Report to the Governor available to all interested lawmakers. In addition, notification of the Report to the Governor will be sent to the appropriate committee chairs.*

3. KDHE should investigate the feasibility of developing a water system “as built” mapping assistance program.

*Change: The KDHE provided funding to the Kansas Water Office (KWO) to update rural water district boundary maps that were previously developed. "As Built" maps should be the responsibility of the individual water systems.*

4. Establish rules relative to water meter use. This information is critical for rate setting and for daily system operations.

*Change: This recommendation required the State of Kansas to develop rules and regulations requiring customer meters at all public water supply systems. The KDHE or the Department of Agriculture, Division of Water Resources (DWR) does not have the necessary authority to require public water supply systems to install customer meters. The KDHE, KWO, and DWR strongly recommend customer meters for all public water supply systems. The new 2007 Water Conservation Plan Guidelines indicate that customer meters are needed for approval of Water Conservation Plans.*

5. The KDHE should take a proactive approach in providing information to public water systems that is accurate and understandable. The workgroup recommended ideas such as a periodic newsletter and a CCR-style report that would include an accounting of how water supply fees were spent in addition to a summary of annual compliance data and KDHE activities.

*Change: The KDHE publishes Capacity Development Program articles in the Operator Newsletter, provides information for technical assistance provider publications and posts information on the KDHE webpage. In addition information relating to the use of capitalization grant funds is provided in the Annual Work Plan for the SRF program. Creating and publishing an additional newsletter would be redundant and would require resources that can be better used elsewhere.*

6. The Workgroup recommends a third-party assessment of current and future program resource needs to provide information to overcome the perception that KDHE personnel resources have not kept pace with the new responsibilities of the State Drinking Water Protection Program.

*Remove: The Kansas Legislature approved additional staffing requests for the public water supply supervision program and the PWS Fee Fund. An evaluation of resources need is no longer necessary.*

### **Addition to the Strategy for Existing Public Water Supply Systems**

During State Fiscal Year 2007 the KDHE added the Capacity Development Achievement Award Program to the Strategy for Existing Public Water Supply Systems. The Award Program is designed to recognize public water supply systems that demonstrate excellence in achieving and maintaining technical, financial and managerial capacity. The awards are given annually. Up to 5 awards will be given to systems serving a population of 500 or less. Up to five additional awards will be given for systems serving a population between 501 and 3,300. One award each will be granted for systems serving between 3,301 and 10,000; and for 10,001 or more. One public wholesale water supply district will be also be given an award each year.

## **Appendix 4**

### **State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems, Amendment 2**

**State of Kansas  
Capacity Development Strategy**

**for**

**Existing Public Water Supply Systems**

**Amendment 2**



**Kansas Department of Health and Environment  
Division of Environment  
Bureau of Water**

**State Fiscal Year 2015**

(This page intentionally left blank)

## **Introduction**

The Kansas Capacity Development Strategy for Existing Public Water Supply Systems was approved by the U.S. Environmental Protection Agency (EPA) in September 2000; the initial recommendations in the Strategy are now fully implemented. As part of ongoing implementation efforts, a periodic review and update is conducted to insure that the Capacity Development Program continues to support the development of new tools and programs that assist water systems in capacity building. The Kansas Department of Health and Environment (KDHE) plans to enhance the Capacity Development Program by adding two new programs to the Strategy. This Amendment adds the Area-Wide Optimization Program (AWOP) and the Drinking Water Protection Program (DWPP). The inclusion of these new programs in the Strategy will allow KDHE to use Drinking Water Revolving Loan Fund Set-asides for development and implementation activities, which in turn will help small systems achieve and maintain technical, financial and managerial capacity.

On June 3, 2014, the Kansas Department of Health and Environment (KDHE) convened the Capacity Development Stakeholder Group to review past Program activities and achievements, and to solicit advice on AWOP and DWPP development and implementation. Members of the Stakeholder Group in attendance included: Kansas Municipal Utilities, Wichita State University/Environmental Finance Center, Kanas Rural Water Association, League of Kansas Municipalities, Kanas Water Office, Ranson Financial Consultants LLC, USDA/Rural Development, KDHE Operator Certification Program, KDHE Revolving Loan Program, and KDHE Watershed Management Section. An overview of each program was provided and the group supported adding them to the Strategy.

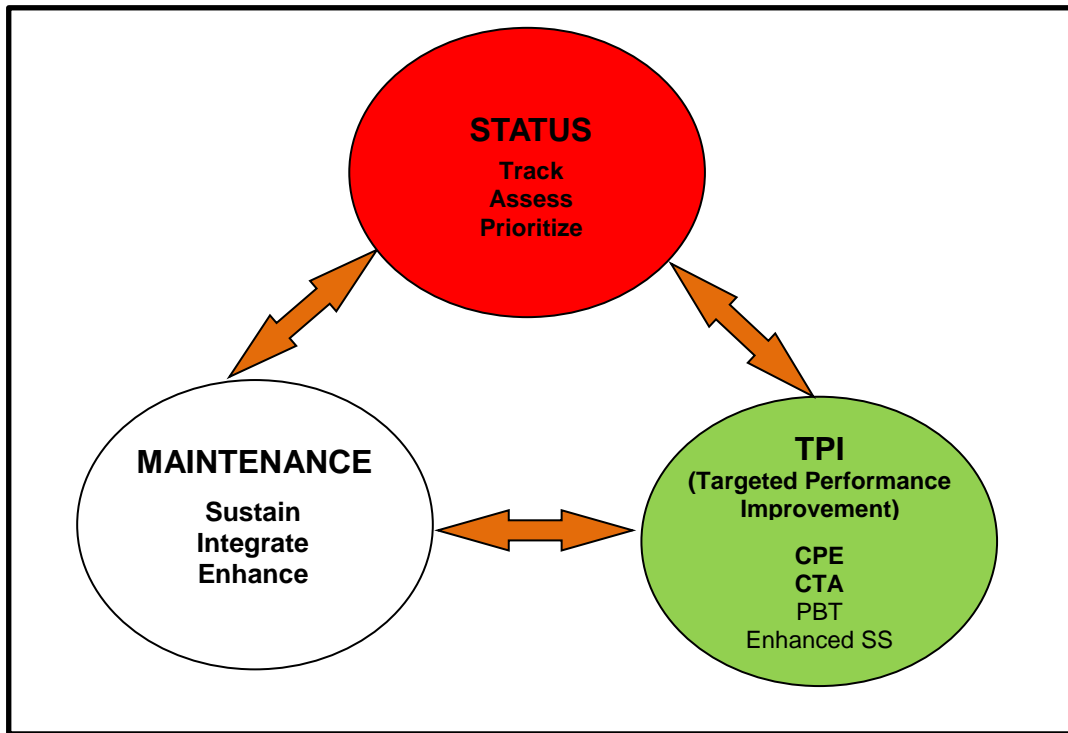
Addition of AWOP and DWPP help to address the Institutional, Regulatory and Financial impairments identified for state and local levels in the July 2000, *Report of Findings on Improving the Technical, Financial and Managerial Capacity of Kansas' Public Water Systems*. Development and implementation for both programs is scheduled to begin in State Fiscal Year 2015. A general description of each program is provided below.

### **Area-Wide Optimization Program (AWOP)**

The Area-Wide Optimization Program employs a unique approach that identifies higher risk water systems for state assistance to maximize the public health protection that water treatment plants provide. AWOP encourages water systems to move beyond simply complying with regulatory requirements in order to enhance public health protection. This is accomplished by establishing goals and measuring performance in achieving those goals.

In conjunction with establishing performance goals, a core of the program is the AWOP network. This network of states works to achieve optimization at water systems through transfer of skills during quarterly regional meetings and training sessions, national meetings and multi-state training events. KDHE will participate in the EPA Region 6 Network. Iowa, Missouri and EPA Region 7 are also included the Region 6 Network. The AWOP approach allows states to focus on systems with the greatest need and use appropriate tools for each one. The AWOP components are illustrated in Figure 1.

**Figure 1 – AWOP Components**



CPE – Comprehensive Performance Evaluation, CTA – Comprehensive Technical Assistance, PBT – Performance Based Training, SS – Sanitary Survey

The Status Component is the foundation of AWOP activities. Criteria determined by the State will be used to identify performance optimization goals, prioritize water systems relative to public health risk, and allocate resources to highest risk systems. The Status Component will also provide information to document impacts and successes.

The Targeted Performance Improvement Component will identify specific activities for individual water systems using the information developed through the Status Component. Depending on the needs and identified risk, activities may include Comprehensive Performance Evaluation (conducted by State), Comprehensive Technical Assistance (conducted by State or State designated TA provider), Performance Based Training (conducted by State selected trainer), and/or Enhanced Sanitary Surveys and Inspections (conducted by State). Knowledge of these AWOP tools gained through State participation in the network will help target the appropriate tools to the right systems to maximize performance improvement.

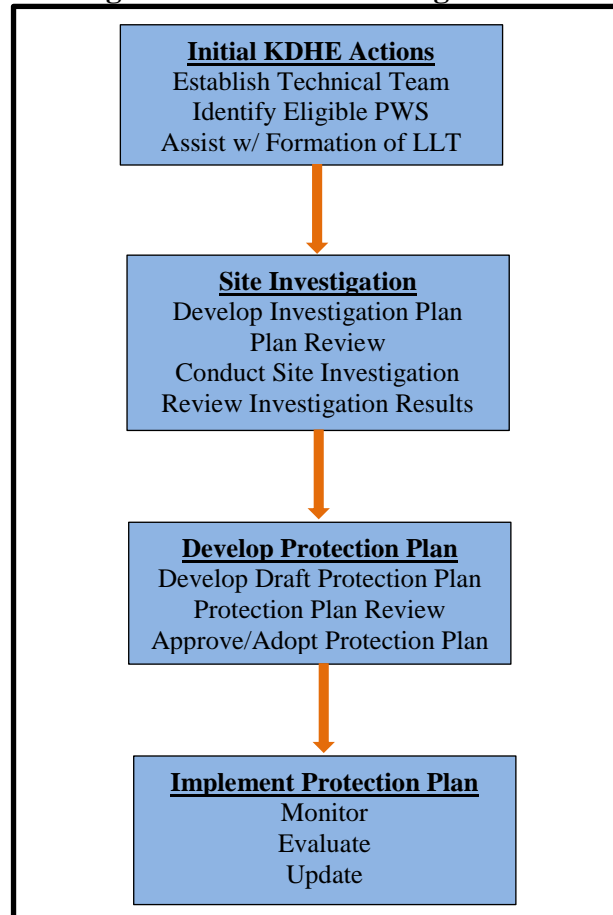
The Maintenance Component will help sustain AWOP resources and integrity, integrate AWOP findings and approaches with other drinking water program activities, and will enhance overall effectiveness of Program activities through a commitment to continual improvement. A robust Maintenance Component is a characteristic of a mature Area-Wide Optimization Program.



## Drinking Water Protection Program (DWPP)

The high capital cost along with the long-term operation and maintenance cost associated with installation of treatment facilities at small drinking water systems prompted KDHE to explore alternative approaches for compliance with drinking water regulations. One such approach is the Drinking Water Protection Program, previously known as the Source Water Protection Program. The DWPP is a joint project between the Public Water Supply and Watershed Management Sections. It will be designed to help water systems provide drinking water that complies with state and federal regulations through protection of the source water. The goal of the DWPP is to help water systems avoid expensive treatment alternatives by developing and implementing a long-term drinking water protection plan. Figure 2 illustrates, in general terms, the process for development and implementation of a drinking water protection plan. A more detailed description of the planning and implementation process will be developed and refined based upon the lessons learned during the pilot projects. KDHE anticipates completing 2 – 3 pilot projects during the first 2 years. Planning and implementation will be primarily driven by the Local Leadership Team with assistance and support by KDHE. Participation by the water systems will be voluntary.

**Figure 2 – DWPP Planning Process**



LLT – Local Leadership Team

KDHE will use compliance and TFM survey data to identify water systems eligible for financial and technical assistance under the Drinking Water Protection Program. Guidance documents will also be made available to water systems interested in developing a drinking water protection plan independent of KDHE assistance.