

**KANSAS PUBLIC WATER SUPPLY  
CAPACITY DEVELOPMENT PROGRAM**

**REPORT TO THE GOVERNOR**

September 1, 2011



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

# TABLE OF CONTENTS

Introduction	1
Water System Capacity	1
Capacity Assurance – New Public Water Supply Systems	2
New System Permitting Overview	2
New System Implementation and Program Efficacy	2
Capacity Development Strategy for Existing Public Water Supply Systems	2
Existing System Strategy Overview	2
Existing System Strategy Review and Modification	3
Existing System Strategy Implementation Highlights	4
KanCap	4
Financial Planning Tools and Assistance	6
Regional Public Water Supply Planning Grant Program	6
Other KDHE Programs Related to Capacity Development	6
Operator Certification Program	6
Kansas Public Water Supply Loan Fund Program	7
Kansas Public Water Supply Loan Fund: Small System Technical Assistance	8
Report Availability	8
Attachment A – Capacity Development Strategy for Existing Water Supply Systems, Amendment 1	9
Attachment B – KanCap Evaluation Form	10
List of Tables	
Table 1 – Initial 8 Strategy Recommendations	3
Table 2 – Remaining 7 Strategy Recommendations	3
Table 3 – KanCap Classroom Training Evaluation Summary	5

## **INTRODUCTION**

On August 6, 1996, President Bill Clinton signed PL 104-182, more commonly known as the Safe Drinking Water Act (SDWA) Amendments of 1996. Section 1420 of the SDWA required states to prepare two strategies to assist public water suppliers in achieving technical, financial and managerial capacity. One strategy was prepared for new system permitting. The second was prepared to help existing systems. The Kansas Department of Health and Environment (KDHE) is the primacy agency responsible for preparation and implementation of the Kansas Capacity Development strategies.

The New Systems Capacity Development Strategy was submitted to the U. S. Environmental Protection Agency (EPA) and subsequently approved in September 1999. The New Systems Strategy ensures that KDHE will not issue a permit to a new system until it has demonstrated the technical, financial and managerial (TFM) capacity to comply with drinking water regulations for the protection of the public health. As of September 2011, 22 new public water supply system applications have been approved.

The Kansas Capacity Development Strategy for Existing Systems was submitted to the EPA in August 2000 and was approved in September 2000. The SDWA requires the head of the state primacy agency to submit to the Governor 2 years after adoption of the strategy and every 3 years thereafter, a report on implementation and efficacy of the state strategy. This report is submitted to the Governor to comply with the 3-year reporting requirement. Failure to prepare a strategy or submit the required reports results in reductions in the capitalization grant from EPA for the drinking water revolving loan fund.

## **WATER SYSTEM CAPACITY**

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 water 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 water 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 water 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 water 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 meet both immediate and long-term challenges.

## **CAPACITY ASSURANCE – NEW PUBLIC WATER SUPPLY SYSTEMS**

### **New System Permitting Overview**

Under the 1996 amendments to the SDWA states are required to insure that new community and new non-transient, non-community (NTNC) public water supply systems have the technical, financial and managerial capability to meet current and future SDWA requirements. The KDHE's New System Permit Application consists of two parts. Part 1 is the engineering and design component, which is reviewed and approved by the Engineering and Permitting Unit. Part 2 of the permit application is the technical, financial and managerial capacity assurance component. Upon approval of Part 1 and the budget section of Part 2, a conditional permit or a letter of approval is issued authorizing construction of the public water supply system. Before the system begins operation, the remaining elements in Part 2 of the application must be completed and approved. A final inspection must also be conducted and approval to initiate operations must be granted by KDHE.

### **New System Implementation and Program Efficacy**

The Capacity Assurance Strategy for new systems includes a review and evaluation component that the KDHE uses to determine if the application and permitting process is effective. The KDHE employs the EPA's Enforcement Response Policy (ERP) and Enforcement Tracking Tool (ETT) to analyze the success of the New System Capacity Assurance Program. According to the ERP, any system that scores 11 points or more using the Enforcement Tracking Tool (ETT) is considered to be in significant non-compliance. Any new system with 11 or more points, receives a special review to ascertain why the non-compliance is occurring. KDHE evaluates whether the system's non-compliance is because of any short-coming in the new system permitting process or whether the non-compliance is due to other reasons, such as not following a proposed budget or providing proper training for the system's certified operator. For the purposes of this report KDHE evaluated all new systems since EPA approval of the program in 1999. None of the 22 new systems permitted under the New System Capacity Assurance Program scored 11 points or more. This indicates that the Program is effective for new system permitting.

## **CAPACITY DEVELOPMENT STRATEGY FOR EXISTING PUBLIC WATER SUPPLY SYSTEMS**

### **Existing System Strategy Overview**

In March 1999, KDHE convened the Kansas Capacity Development Workgroup to assist in the preparation of the *Report of Findings* for the Kansas Capacity Development Strategy. Thirty drinking water stakeholders from across the State were invited to participate in the Workgroup. The Workgroup met 8 times during 1999 and 2000 and developed 15 recommendations for the Department to consider in the State Strategy.

Eight of the 15 recommendations were included for initial implementation in the Capacity Development Strategy, the remaining 7 were considered for implementation as time and resources allowed. As of September 2011, all 15 recommendations have been implemented or amended. The changes are documented in Amendment 1 of the Capacity Development Strategy for Existing Water Supply Systems (Attachment A). The status for all 15 recommendations is shown in tables 1 and 2 below.

**Table 1 – Initial 8 Strategy Recommendations**

<b>Recommendation</b>	<b>Implementation Status</b>
TFM Surveys for all community water systems	Implemented – Conducted every 3 years
Require water use reports from all systems	Implemented – Required annually By DWR
Develop a PWS business planning guidebook	Implemented – Part of KanCap
Develop PWS finance training program	Implemented – KanCap/EFC Financial Tools
Require all systems to install customer meters	Change – Strategy Amendment 1, Item 4
Expand KDHE “Survival Guides” for PWS systems	Implemented – TCR, CCR, DBPR1, LT1ESWTR, IESWTR, FBRR, PNR <a href="http://www.kdheks.gov/pws/survival.html">http://www.kdheks.gov/pws/survival.html</a> Capacity Development Fact Sheets: <a href="http://www.kdheks.gov/pws/capdev.html">http://www.kdheks.gov/pws/capdev.html</a>
Develop facilities management plan guidelines (Asset Management)	Implemented – A.M. Kan Work
Develop board/council member education program	Implemented – KanCap

**Table 2 – Remaining 7 Strategy Recommendations**

<b>Recommendation</b>	<b>Implementation Status</b>
Kansas Lawmakers information packets	Changed – Strategy Amendment 1, Item 2
“As Built” mapping assistance program	Changed – Strategy Amendment 1, Item 3
Encourage partnerships among PWS systems	Implemented – KDHE Planning Grant Program, Participate in KWO and/or local sponsored regional PWS planning activities
Develop drinking water public information program	Changed – Strategy Amendment 1, Item 5
Develop program to help select engineers/consultants	Implemented – Part of KanCap
Develop newsletter – KDHE spending, compliance, etc.	Changed Strategy Amendment 1, Item 5
Third-party assessment of KDHE resource needs	Removed – Strategy Amendment 1, Item 6

**Existing System Strategy Review and Modification**

Periodic review and modification of the Strategy for Existing Systems is vital in keeping KDHE’s Capacity Development Program current and relevant to the needs of Kansas public water supply systems.

The KDHE periodically meets with the capacity development stakeholder group to provide updates on Strategy implementation activities. These meetings provide an opportunity for the stakeholders to review KDHE's implementation efforts and offer advice on changes that may be needed. The most recent changes to the Strategy were adopted in State Fiscal Year 2007 (Attachment A).

### **Existing System Strategy Implementation Highlights**

Since the *2008 Report to the Governor*, KDHE's primary implementation focus has been on delivery of the KanCap Program, provision of financial planning assistance, participation in regional water supply planning, and development of an asset management tool (A.M. Kan Work). These efforts are designed to help water systems achieve and maintain financial and managerial capacity. It is generally believed that if a water system has adequate financial and managerial capabilities, technical capacity will follow. A brief description of each program is provided below.

#### **KanCap**

KanCap, developed under a contract with the Kansas Rural Water Association (KRWA), is a voluntary education program consisting of an interactive CD and handbook designed for water system governing bodies. KanCap accommodates a variety of learning preferences ranging from formal classroom training to computer self-study. It includes video clips, interactive quizzes and activities that provide information that decision makers need to know to stay in compliance with drinking water regulations. It is also designed for use as a reference tool once the training program is completed. The classroom training consists of three – 3 hour modules. Each module focuses on one of the components of capacity (Technical, Financial, and Managerial). The goal of KanCap is to provide water system governing bodies with the information needed to make decisions that help protect the public health of the citizens they serve. Emphasis is placed on managerial and financial responsibilities.

The KDHE encourages participation in KanCap by providing incentives for board and council member participation. The incentives include additional credit in the ranking system for SRF loans and 3 levels of certification based on the number of participants from an individual water system. The Gold Level is awarded to the individual board/council member. The Platinum Level is awarded to water systems with 50% to 79% board/council participation. The Diamond Level is awarded to water systems with 80% or more board/council participation. The Diamond Level systems receive the additional credit for the SRF loan. An additional incentive provides five hours of credit for the Operator in Responsible Charge if attending with a majority of the operator's board or council.

The KDHE contracts with KRWA to provide KanCap classroom training. Under this contract KRWA conducts 12 training sessions per year, with a minimum of 1 in each KDHE district. During State Fiscal Years 2009, 2010 and 2011, a total of 450 individuals representing 225 public water supply systems participated in KanCap training.

Approximately 25% of the community water systems in Kansas have participated in at least one of the KanCap training modules. Because this is a voluntary program, a 25% participation rate is considered successful.

Each participant in the KanCap classroom program is asked to complete an evaluation form (Attachment B). This helps the KDHE evaluate the effectiveness of the classroom program. The evaluation addresses both the quality of the material presented and the effectiveness of the instructor. Three questions from the evaluation address these topics. Table 3 illustrates the results of the analysis for these 3 questions. A response of 1 or 2 on the evaluation is considered a highly acceptable score. Table 3 shows the actual number of responses for each question with the percentages for that response shown directly below. As indicated in the table, the majority of the participants selected 1 or 2 for all three questions for each of the KanCap modules. These scores are consistent with the rankings provided in the *2008 Report to the Governor* and demonstrate the continued success of this program.

**Table 3 – KanCap Classroom Training Evaluation Summary SFY 2009 – 2011**

<b>Managerial Section Evaluation</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>9</b>	<b>NR</b>	<b>Total</b>
Topics Covered – Number of Responses	200	76	16	3	0	5	0	300
Topics Covered – Percent	67%	25%	5%	1%	0%	2%	0%	100%
Worth Time – Number of Responses	179	90	24	5	0	0	2	300
Worth Time – Percent	60%	30%	8%	2%	0%	0%	1%	100%
Trainer Prepared – Number of Responses	245	42	6	4	1	0	2	300
Trainer Prepared – Percent	82%	14%	2%	1%	0%	0%	1%	100%
<b>Financial Section Evaluation</b>								
Topics Covered – Number of Responses	142	100	28	5	1	14	0	290
Topics Covered – Percent	49%	34%	10%	2%	0%	5%	0%	100%
Worth Time – Number of Responses	118	107	42	9	2	0	12	290
Worth Time – Percent	41%	37%	14%	3%	1%	0%	4%	100%
Trainer Prepared – Number of Responses	152	93	24	9	1	0	11	290
Trainer Prepared – Percent	52%	32%	8%	3%	0%	0%	4%	100%
<b>Technical Section Evaluation</b>								
Topics Covered – Number of Responses	132	75	16	5	0	10	0	238
Topics Covered – Percent	55%	32%	7%	2%	0%	4%	0%	100%
Worth Time – Number of Responses	109	87	28	5	1	0	8	238
Worth Time – Percent	46%	37%	12%	2%	0%	0%	3%	100%
Trainer Prepared – Number of Responses	141	65	23	3	2	0	4	238
Trainer Prepared – Percent	59%	27%	10%	1%	1%	0%	2%	100%

**Table Key:**

Topics Covered: 1 = Very Valuable —————> 5 = Not Valuable  
 Worth Time: 1 = Very Much —————> 5 = Very Little  
 Trainer Prepared: 1 = Very Much —————> 5 = Very Little  
 9 = No Opinion NR = No Response

## Financial Planning Tools and Assistance

KDHE contracted with the Environmental Finance Center (EFC) at Boise State University to develop a Kansas specific rate-setting and financial planning tool that is available at no charge to all Kansas water systems. Under the contract, the EFC provides a statewide license for Rate Check-up.

Additionally, KDHE contracts with Ranson Financial Consultants, LLC to provide on-site financial planning assistance including rate setting, budget review and capital improvement planning. This assistance includes a review of the system's budgets, audits, rates and financial planning procedures. A report is provided to the system with recommendations that will help the system achieve and maintain financial capacity, including a rate analysis that illustrates the rates required to maintain long-term financial health and keep the system in compliance. KDHE uses the Capacity Development Survey, enforcement actions, referrals from the district offices and technical assistance providers to identify water systems eligible for this on-site assistance. It is anticipated that this contract will be renewed annually. A total of 85 water systems received rate-setting and financial planning assistance during State Fiscal Years 2009, 2010 and 2011.

## Regional Public Water Supply Planning Grant Program

The Regional PWS Planning Grant Program provides 50% matching funding for preliminary engineering studies that evaluate regional solutions to address public water supply system needs and challenges. KDHE uses a portion of the drinking water loan fund set-aside to provide up to \$12,500.00 to match funding provided by the project sponsors for these studies. This program was started in SFY 2004, and to date, nine studies have been funded. These 9 studies have the potential to benefit a total of 38 public water supply systems. KDHE has the ability to provide cost-share funding for approximately 4 regional PWS studies per year. The planning grant application and program instructions are available on KDHE's capacity development webpage: <http://www.kdheks.gov/pws/capdev.html>.

## **OTHER KDHE PROGRAMS RELATED TO CAPACITY DEVELOPMENT**

### **Operator Certification Program**

Kansas has a long established Operator Training Program beginning with the first Operator Training School in 1920. This first school was a joint effort of the Kansas Department of Health and the University of Kansas. The school continues to be held annually.

The Kansas Water Works Association and the Kansas Water Pollution Control Association in cooperation with the Kansas Department of Health gave the first voluntary water and wastewater certification examinations in 1954. In 1975 the Kansas Legislature passed K.S.A. 65-4501 *et seq.* requiring a mandatory Water and Wastewater Operator Certification Program.

This law requires all public water supply water systems to have a certified operator regardless of size. Kansas has four levels of classification for certified operators based upon population served and system complexity.

The 1996 amendments to the Safe Drinking Water Act require all states to have a certified operator program. EPA approved KDHE's program in February 2002. Approval of the program qualifies KDHE for a grant from EPA to implement a certified operator training assistance program. Since Kansas has a well established operator training program the focus of the grant is to provide assistance to systems that have Operators-in-Training to ensure that the systems are being properly operated until such time the operator becomes fully certified. The grant also provides support for the Kansas Backup Operator Program (KBOP). KBOP provides funding for small systems to have a certified backup operator ready and willing to operate the system in the event the primary operator is not available. Emergency planning and vulnerability assessment training is also funded with the grant.

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

The Fund is a revolving loan fund program that provides financial assistance in the form of loans to Kansas municipalities, at below market interest rates, for the construction of public water supply system infrastructure. Kansas Statutes (65-163d through 163u) establishing the Loan Fund, were passed by the 1994 legislature. However, enabling legislation at the Federal level for the public water supply revolving loan fund was not in place until President Clinton signed the SDWA Amendments of 1996 in August 1996. EPA accepted the Kansas statutes as meeting the requirements of the SDWA.

The Loan Fund is made possible by receipt of capitalization grants from the EPA. During state fiscal years 2009, 2010 and 2011 Kansas received a total of \$55,773,000 from EPA. A portion of the grant funding is set-aside for technical assistance to public water supply systems and implementation of the Capacity Development Strategy.

The SDWA prohibits loans 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 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. Loans awarded under the Program have helped systems achieve and maintain compliance with SDWA regulations. As new regulations are implemented loans will continue to help systems meet the increasing challenges they face in achieving compliance.

## **Kansas PWS Loan Fund: Small System Technical Assistance 2% Set-Aside**

Technical assistance is provided to small systems (less than 10,000) through a contract with the Kansas Rural Water Association. Through this contract the KRWA provides technical assistance to small systems to help achieve safe drinking water act compliance, develop and maintain proper operation and maintenance procedures, develop appropriate management procedures and provide technical assistance to systems using surface water as their source of supply. It is anticipated that technical assistance provided under this contract will help prevent safe drinking water act compliance problems before they occur.

### **REPORT AVAILABILITY**

The SDWA requires that the State make this report available to the public. The Department will post this report on the KDHE Public Water Supply Capacity Development web page. The Capacity Development web page address is:  
<http://www.kdheks.gov/pws/capdev.html>.

Other Capacity Development Reports available by request or from the web page include:

- ❖ Report of Findings on Improving the Technical, Financial and Managerial Capacity of Kansas' Public Water Systems, July 2000
- ❖ State of Kansas Capacity Development Strategy for Existing Public Water Supply Systems, August 1, 2000

**ATTACHMENT A**

**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**

**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.

**ATTACHMENT B**

**KanCap Education Program  
Evaluation Form**

KanCap Board/Council Education Program  
Workshop Evaluation Form

Please help KDHE and the Trainers do a better job by taking a few moments to fill in this brief form.

Date: \_\_\_\_\_ Workshop Attended(circle one):      Managerial      Technical      Financial

Training provided by: Organization \_\_\_\_\_ Trainer's Name \_\_\_\_\_

Please indicate your opinion where 1 = Very valuable and 5 = Not valuable.

1. Workshop:	Very valuable				Not valuable				No Opinion
• Topics covered	1	2	3	4	5	5	5	5	9
• Group Activities/MindMeters	1	2	3	4	5	5	5	5	9
• Video Clips	1	2	3	4	5	5	5	5	9
• Quizzes	1	2	3	4	5	5	5	5	9

2. What did you like best about this workshop? (Use other side if necessary)

3. What did you like least? (Use other side if necessary)

4. To what extent was this workshop worth your time, where 1= Very much and 5= Very little?

1      2      3      4      5

5. Please use this space for any additional comments. (Use other side if necessary)

6. Was the instructor well prepared and effective in presenting the information?

1=Very much and 5=Very little:      1      2      3      4      5