
COLORADO

SAFE DRINKING WATER PROGRAM

CAPACITY DEVELOPMENT STRATEGY

FY 2013 - 2015

Water Quality Control Division
Colorado Department of Public Health and Environment

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1.0 Introduction

One of the primary goals of the 1996 Amendments to the Safe Drinking Water Act (SDWA) was to focus the country's drinking water programs on protecting public health by preventing problems in drinking water systems. To achieve this goal, the 1996 Amendments added provisions for each state to develop a Capacity Development Program to assist public water systems in developing their technical, managerial, and financial (TMF) capabilities so they can strengthen their ability to supply safe drinking water to the public. States that fail to implement a Capacity Development Program, and fail to prepare a capacity development strategy, risk losing 20 percent of the annual federal Drinking Water State Revolving Fund (DWSRF) capitalization grant that the state is otherwise eligible to receive.

The Safe Drinking Water Program of the Water Quality Control Division at the Colorado Department of Public Health and Environment fully implements a Capacity Development Program that aligns with the requirements of the SDWA. As required by the 1996 Amendments, the Safe Drinking Water Program has prepared this document to describe Colorado's capacity development strategy and to establish the nine strategic goals used to support and guide ongoing strategic planning efforts.

Colorado's Capacity Development Program was developed by the Colorado Drinking Water Program in partnership with a stakeholder group that includes drinking water systems, technical assistance partners, and staff of the Water Quality Control Division. The Capacity Development Strategy is designed to give the program broad structure. Detailed projects and activities are described in the work plans related to the program, including the State Program Management Set-Aside, the Local Assistance and Other State Programs Set-Aside, and the Small System Training and Technical Assistance (SSTTA) Set-Aside. These work plans are developed on a rolling three to five year basis, and are revised regularly to meet the changing needs of the program and the drinking water systems. This program approach is designed to distinguish between strategic planning and implementation and to improve and streamline the program's guiding documents.

This Capacity Development Strategy covers state fiscal years (FY) 2013 – 2015. The nine strategic goals provided herein were originally established in Colorado's *FY 2008 – 2012 Capacity Development Strategic Plan*. This version of the Capacity Development Strategy has been updated with specific examples of how strategic goals are currently being achieved within the Water Quality Control Division. The historical basis of the Capacity Development Program and strategy can be reviewed in a series of program documents available online at <http://www.cdphe.state.co.us/wq/drinkingwater/CBUReportsPublications.html>.

2.0 Strategic Framework

The building blocks of Colorado's Capacity Development Strategy include seven guiding principles, three key focus areas, and five federally required elements. Each building block is described below and together these elements provide a solid foundation for the development of nine strategic goals that reflect the mission of Colorado's Capacity Development Program.

2.1 Guiding Principles

Colorado's Capacity Development Strategy is guided by the mission and strategic goals of the Water Quality Control Division, the Department of Public Health and Environment, and the goals and objectives of the USEPA Strategic Plan. Based on these overarching strategic goals, the seven guiding principles of the Capacity Development Strategy are as follows:

- 1) Commitment to public health through continuously safe drinking water for all Colorado residents and visitors,
- 2) Commitment to customer focus by providing quality information to the citizens of Colorado,
- 3) Commitment to excellence by maintaining a skilled, team-oriented professional staff dedicated to continuous improvement, quality work products, and measurable results,
- 4) Commitment to assist in the prevention of the spread of diseases or illnesses that may be waterborne,
- 5) Commitment to work in partnership with local agencies, other state agencies, and technical assistance providers to improve the efficient delivery of services,
- 6) Commitment to use available information and science to make sound decisions, and
- 7) Commitment to identify and disseminate best practices throughout the drinking water community.

2.2 Key Focus Areas

The SDWA requires states to develop and implement programs that will help all new and existing public water systems possess sufficient technical, managerial, and financial capacity to ensure and enhance their ability to provide safe drinking water to the public. To fulfill this requirement, the Colorado Capacity Development Program directs resources to three key focus areas (KFAs):

- 1) Program Administration (KFA 1)
- 2) New Water Systems (KFA 2)
- 3) Existing Water Systems (KFA 3)

The relationships between the key focus area and the nine strategic goals presented in Section 3 are highlighted using the KFA 1 - 3 annotations.

The first key focus area is program administration. While the intent of the program is to spend most of the resources on water system issues, program administration is an essential part of any effort, and will ensure that resources are spent wisely and on the highest priorities.

New water systems require special focus and attention, since they are often managed and operated by personnel new to the water industry, they have limited understanding of the requirements of developing and maintaining a sustainable water system, and they frequently do not understand the regulatory requirements of the department. However, new systems are a small fraction of the total number of systems, so the level of effort directed toward these systems is also a small portion of the total Capacity Development Program.

A full spectrum of training, technical assistance, compliance assistance, and financial management assistance are focused on ensuring the technical, managerial, and financial capacity of existing public water systems. All efforts directed toward existing water systems are also made available to new water systems.

2.3 Federally Required Elements

Under the SDWA Amendments, EPA grants the states the flexibility to develop a capacity development strategy that meets the needs and resources within each state. However, EPA requires that each state include five specific elements in their capacity development strategies. These five elements are listed below along with italicized text from the EPA document “Handbook for Capacity Development: Developing Water System Capacity under the Safe Drinking Water Act as Amended in 1996,” which serves as guidance for implementing each element.

The relationships between each required elements and the nine strategic goals presented in Section 3 are highlighted using the SDWA 1 – 5 annotations.

- ◆ **SDWA 1 - Methods or Criteria to prioritize systems (CDSG 3, 8):** *These include methods or criteria that could be used to identify and prioritize public water systems most in need of improving technical, managerial and financial capacity.*
- ◆ **SDWA 2 - Factors that Encourage or Impair Capacity Development (CDSG 6, 9):** *These factors include the “institutional, regulatory, financial, tax or legal” factors that exist at the Federal, State, or Local level that encourage or impair capacity development.*
- ◆ **SDWA 3 - How the State will use the Authority and Resources of the SDWA (CDSG 1, 3, 4, 7, 8, 9):** *Describe how the State will use the authority and resources of the SDWA or other means to:*
 - *Assist public water systems in complying with National Primary Drinking Water Regulations.*
 - *Enhance technical, managerial and financial capacity by encouraging the development of partnerships between public water systems.*
 - *Assist public water systems in the training and certification of their operators.*
- ◆ **SDWA 4 - How the State will establish the Baseline and Measure Improvements (CDSG 2, 3, 5, 8):** *The state should describe how it will establish a baseline and measure improvements in the capacity of public water systems under their jurisdiction. This element provides the tools that State primacy agencies must have to produce and submit a report to their Governors on the efficacy of their capacity development strategy and progress made toward improving the technical, managerial and financial capacity of public water systems in their State.*
- ◆ **SDWA 5 - Procedures to identify interested persons (CDSG 1, 3, 4, 7, 9):** *States should identify and involve stakeholders in the creation and implementation of their capacity development strategy.*

3.0 Capacity Development Strategic Goals

Colorado’s Capacity Development Program is comprised of the nine strategic goals and associated elements used to support and guide ongoing strategic planning efforts. The program’s efficacy is evaluated based on the achievement of these nine goals through detailed program work plans, and is reported on a three-year

basis in Colorado's *Capacity Development Program Report to the Governor*. The nine strategic goals and specific examples of how each strategic goal is currently being achieved within the Water Quality Control Division are presented below.

Strategic Goal 1 – Provide a system of education, training, and technical assistance that provides assurance to the public that the drinking water provided to them by their public drinking water system is consistently safe. (KFA 2, 3; SDWA 3, 5)

- Implement the Safe Drinking Water Program's *2015 Public Water System Training Strategy*¹ designed to establish the vision for Colorado public water system training services through 2015 and to direct the CBU's annual work planning and priority setting related to public water system training. The training strategy is the culmination of a 12-month, four-phase project designed to 1) assess the most common failures at Colorado's public water systems, 2) establish a baseline and preliminary gap analysis of existing training and technical assistance services for public water systems, 3) convene a Roundtable of technical assistance providers to collect critical input from the training community, and 4) apply project results to develop a five-year strategic plan for training services.
- Apply DWSRF set-asides to leverage and support training and technical assistance partnerships with a diverse group of Colorado businesses, agencies, schools, and nonprofit organizations statewide.
- Support and maintain SWAP program efforts designed to provide the public consumer with information about their drinking water, as well as provide the community a way to get involved in protecting the quality of their drinking water.
- Provide continued one-on-one water system training and technical assistance through the Capacity Building Unit's Capacity Coaching Workgroup and other Safe Drinking Water Program groups.

Strategic Goal 2 – Develop and apply a measurement system for all Capacity Development Projects to ensure the program has a measurable and documented beneficial impact on public health, compliance rates, and public trust in the state drinking water program and in their own public water supplier. (KFA 1; SDWA 4)

- Leverage the results of the Safe Drinking Water Program's *Failure and Root Cause Analysis Project (FRCA) Report*² to assess trends in water system compliance and performance. The FRCA report summarizes compliance data collected at Colorado public water systems over a three-year period, from July 1, 2005, through June 30, 2008; identifies and evaluates trends in compliance failures; and highlights the areas of greatest weakness at water systems. The FRCA report provides a

¹ Williams, Sharon Israel, Capacity Building Unit, Safe Drinking Water Program. July 2010. *Colorado 2015 Public Water System Training Strategy*. Available for download at: www.cdph.state.co.us/wq/drinkingwater/CBUReportsPublications.html

² Oxenford, Jeff and Williams, Sharon Israel, Capacity Building Unit, Safe Drinking Water Program. September 2009. *Failure and Root Cause Analysis Final Report*. Available for download at: www.cdph.state.co.us/wq/drinkingwater/CBUReportsPublications.html

valuable baseline for comparing, measuring, and evaluating the effectiveness of capacity development program activities in years ahead.

- Continue to develop and implement project-specific measures to translate project efforts and accomplishments into measurable outcomes.
- Focus measurement on outcomes of improvement to public health.

Strategic Goal 3 – Apply a proactive approach to systems of concern, so these systems are provided the tools and resources needed to regain compliance and full capacity. (KFA 1, 3; SDWA 1, 3, 4, 5)

- Utilize the list of ETT outputs to identify systems that might lack technical, managerial or financial capacity and prioritize assistance efforts.
- Utilize system reported data and information to proactively identify trends that suggest a system might lack technical, managerial or financial capacity and prioritize assistance efforts.
- Support and enhance the efforts of the Safe Drinking Water Program to monitor water system compliance with water quality laws and regulations, detect non-compliance, and respond to violations quickly, fairly and consistently in order to limit harm to the public and the environment.
- Support and enhance the efforts of the Safe Drinking Water Program to conduct sanitary surveys of public water systems, review public water system designs for conformance with design criteria; prepare and distribute technical assistance materials, and track system compliance with follow-up requirements.
- Fully engage Cross-Program Compliance Teams to leverage and focus program resources on systems of concern with persistent disinfection, disinfection byproduct, and/or radionuclide issues.
- Integrate partnerships with drinking water technical assistance providers, associations, and other non-profit organizations to apply their resources toward assisting systems of concern.

Strategic Goal 4 – Develop a program that will support collaboration among all drinking water systems, assist those smaller systems understand their problems and potential solutions, and use performance based approaches to developing training. (KFA 3; SDWA 3, 5)

- Support and enhance the efforts of the Safe Drinking Water Program to promote treatment process optimization and provide training and recognition for surface water treatment facilities in Colorado.
- Expand and enhance performance based training based on the EPA Area Wide Optimization Program Model.
- Expand Safe Drinking Water Program excellence initiatives to source protection, distribution systems and other operations and management areas.
- Expand Safe Drinking Water Program excellence initiatives to ground water systems to enable all systems to strive for excellence.

Strategic Goal 5 – Use available resources in an efficient and timely manner, with a focus on continuous improvement of the program. (KFA 1, SDWA 4)

- Ensure that the Capacity Develop Program strategic goals are integrated into all processes and procedures of the Safe Drinking Water Program.
- Leverage and utilize program planning tools including the Program's *2015 Public Water System Training Strategy* and *Failure and Root Cause Analysis Project (FRCA) Report* to direct decisions on work plan priorities.

Strategic Goal 6 – Develop and distribute an effective needs assessment to drinking water systems of Colorado, evaluating the technical, managerial and financial needs, capital needs, and impact of shortfalls on system performance on the health of the populations served. (KFA 1, 2, 3; SDWA 2)

- Follow leads developed by other states in assessing needs of drinking water systems, and develop an assessment tool for Colorado that measures needs as well as program effectiveness.
- Develop and distribute assessment tool, and analyze results. Incorporate ideas and suggestions into strategic and work plans of the program.

Strategic Goal 7 – Integrate sustainability into program projects wherever possible, to ensure that resource expenditures develop ongoing programs that provide measurable impacts, and do not result in a short-term, single project. (KFA 1; SDWA 3, 5)

- Support and provide cross-media cooperation in inspections, enforcement, compliance assistance, and technical assistance coaching where possible, and utilize conservation of resources where practical.
- Continue to provide technical expertise and assistance to local watershed initiatives, local governments, and community and non-community drinking water systems in obtaining technical and financial assistance to develop, implement, and ensure the long-term success of source water protection plans.

Strategic Goal 8 – Ensure all new and proposed new systems are developed with adequate technical, managerial, and financial capacity to remain a viable and sustainable drinking water system into the foreseeable future. (KFA 2, SDWA 1, 3, 4)

- Conduct technical, managerial, and financial (TMF) capacity reviews for all new water systems and water systems applying for loans under the DWSRF to ensure that these systems will operate into the future with fewer difficulties, be financially secure, and be managed with the best interests of the water users in mind.
- Track the compliance status of all new systems for three years following start-up, and intervene at any point the system appears to lack adequate capacity, providing technical assistance and training to ensure continued compliance. This includes utilizing the list of ETT outputs as a way to identify systems that might lack technical, managerial or financial capacity.

Strategic Goal 9 – Establish and foster partnerships with other federal, state, and local drinking water organizations. (KFA 1; SDWA 2, 3, 5)

- Implement the *2015 Public Water System Training Strategy* to establish and foster training partnerships statewide.
- Enhance communication and collaboration with the Colorado Operator Certification Program to ensure that available training services meet operator training needs and professional development goals. Identify and overcome barriers associated with cross-program work planning and coordination.
- Continue to foster partnerships through Colorado's Water/Wastewater Agency Response Network (CoWARN) and National Incident Management System (NIMS) initiative to promote security and all-hazards preparedness throughout the state's drinking water community.
- Direct and support Local Health Departments and counties utilizing set-aside funds to conduct field evaluations of non-community groundwater systems.
- Participate in and give presentations at national and regional EPA sponsored Capacity Development Workshops and Conferences.
- Work with Colorado Water Resources and Power Development Authority, Colorado Department of Local Affairs, and other state agencies to coordinate capacity development efforts.

4.0 Program Implementation

The Colorado Capacity Development Program is fully implemented within the Water Quality Control Division at the Colorado Department of Public Health and Environment. In addition, the program strategy directly relates not only to capacity development but also to our core mission: *To provide training, technical assistance, and management support services to public water systems so they can strengthen their ability to provide safe drinking water to the public.*

On a rolling three-year basis, the efficacy of Colorado's Capacity Development Program is evaluated based on the achievement of nine strategic program goals through program-specific work plans, and a comprehensive program report is submitted to the state Governor. The September 2011 Colorado Safe Drinking Water Program Capacity Development Program Report to the Governor is available online at

<http://www.cdphe.state.co.us/wq/drinkingwater/CBUReportsPublications.html>

The Safe Drinking Water Program anticipates the continued support and implementation of the Capacity Development Program, and continued use of DWSRF capitalization grant funds to help public water systems achieve and maintain technical, managerial, and financial capacity. It is important to us that our decisions and activities are transparent and that priorities are well-defined and well-communicated. The Capacity Development Program will continue to evolve as the program evaluates its successes and failures, and as small drinking water systems face new challenges in complying with new and revised regulations.