



**Environmental  
Protection Agency**

John R. Kasich, **Governor**  
Mary Taylor, **Lt. Governor**  
Scott J. Nally, **Director**

September 26, 2011

John R. Kasich, Governor  
State of Ohio  
Riffe Center, 30<sup>th</sup> Floor  
77 South High Street  
Columbus, OH 43215-6117

Dear Governor Kasich:

I am pleased to submit the State Fiscal Year 2009 through 2011 Triennial Report on the Capability Assurance Strategy for the State of Ohio. The federal Safe Drinking Water Act requires each state to implement strategies to improve the technical, managerial and financial capacity of public water systems. The Act further requires the head of the state agency with responsibility to carry out the Act, to submit a report to the Governor on our efforts to implement those strategies. The attached report outlines Ohio EPA's activities and accomplishments to improve public water system capabilities over the last three program years.

Please contact me or Michael Baker, Chief of Ohio EPA's Division of Drinking and Ground Waters, at (614) 644-2752 if you have any questions regarding Ohio's capability assurance program.

Sincerely,

Scott J. Nally, Director  
Environmental Protection Agency

Enclosure

cc: Michael G. Baker, Chief, DDAGW  
Christine Brock, Supervisor  
Sahba Rouhani, Region V, Capacity Development Coordinator

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## Capability Assurance Strategy Triennial Report to the Governor



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## Introduction

Approximately 90 percent of Ohioans receive water used for bathing, cooking, and drinking from a public water system. Even people who have their own private wells to meet their daily needs will visit other homes or businesses served by a public water system. Children and seniors are the most susceptible to illness and death from several contaminants regulated by federal and state drinking water laws including lead, mercury, nitrates, bacteria and viruses.

Approximately 300 schools serving nearly 125,000 people have their own water supply and are regulated by the Ohio Environmental Protection Agency (Ohio EPA) as a public water system. Ensuring safe drinking water for students attending these schools, as well as students attending schools connected to community public water systems, is fundamental to ensuring a high quality education.

As important as public water systems are to the quality of water we drink, and therefore our health, the majority of water produced by public water systems is used by businesses and for fire protection. Properly designed public water systems, including the distribution system, are essential to ensure adequate supplies of water are available for firefighting. Ohio businesses need adequate supplies of good quality water for processing, cooling and product manufacturing. The availability of adequate supplies of water is often a critical factor in attracting new industry to Ohio.

Ohio EPA's Division of Drinking and Ground Waters is responsible for oversight of Ohio's public water systems to ensure they comply with all federal and state drinking water laws and provide adequate supplies of safe drinking water. There are approximately 4,900 public water systems in Ohio including about 1,250 community public water systems serving cities, villages, and rural communities, and mobile home parks; and 731 non-transient non-community systems such as restaurants, campgrounds and churches.

Ohio's Capability Assurance Program is designed to help public water systems improve their technical, managerial, and financial capabilities so they can provide safe drinking water consistently, reliably, and cost effectively. By enhancing system operations and ensuring the technical, managerial and financial capacity of public water systems, Ohio can promote greater long-term compliance with national primary drinking water regulations, and public health protection for the citizens of Ohio.

For a system to have capacity, adequate capability is required in three distinct but interrelated areas:

**Technical** – the physical and operational ability of a water system to meet Safe Drinking Water Act (SDWA) requirements, including the adequacy of physical infrastructure, technical knowledge and capability of personnel, and adequate source water.

**Managerial** – 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, ownership accountability, sufficient staffing and organization.

**Financial** – 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, including revenue sufficiency, credit worthiness, and fiscal management.

This Capability Assurance Strategy Triennial Report to the Governor was prepared by Ohio EPA in fulfillment of Section 1420(c)(3) of the 1996 Amendments of the Safe Drinking Water Act which requires:

*“Not later than 2 years after the date on which a State first adopts a capacity development strategy under this subsection, and every 3 years thereafter, the head of the State agency that has primary responsibility to carry out this title in the State shall submit to the Governor a report that shall also be available to the public on the efficacy of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the State.”*

The United States Environmental Protection Agency (U.S. EPA) has established a September 30, 2011 deadline for submitting these reports. Further, Section 1452(a)(1)(G)(i) *op. cit.* requires:

*“NEW SYSTEM CAPACITY.—Beginning in fiscal year 1999, the Administrator shall withhold 20 percent of each capitalization grant made pursuant to this section to a state unless the state has met the requirements of section 1420(a) (relating to capacity development) if the State has not complied with the provisions of section 1420(c) (relating to capacity development strategies). Not more than a total of 20 percent of the capitalization grants made to a State in any fiscal year may be withheld under the preceding provisions of this clause. All funds withheld by the Administrator pursuant to this clause shall be reallocated by the Administrator on the basis of the same ratio as is applicable to funds allotted under subparagraph (D). None of the funds reallocated by the Administrator pursuant to this paragraph shall be allotted to a State unless the State has met the requirements of section 1420 (relating to capacity development).”*

The Capability Assurance Strategy for the State of Ohio was approved by the U.S. EPA Region 5 Safe Drinking Water Branch on September 25, 2000, and may be found on the Ohio EPA, Division of Drinking and Ground Water’s webpage at <http://www.epa.ohio.gov/ddagw/financialassistance.aspx>. This report is based on data for State Fiscal Years (SFYs) 2009, 2010 and 2011 which covers the period July 1, 2008 through June 30, 2011, except for the compliance data which is from our shared goals with U.S. EPA.

## **Primary objectives in Ohio's capability assurance strategy**

- 1) Identify and prioritize the public water systems most in need of improving technical, managerial, and financial capability.
- 2) Identify the institutional, regulatory, financial, tax or legal factors at the federal, state, or local level that encourage or impair capability assurance.
- 3) Use Ohio's authorities and resources to assist public water systems to:
  - comply with national primary drinking water standards;
  - encourage the development of partnerships between public water systems to enhance the technical, managerial, and financial capacity of the systems; and
  - assist public water systems in the training and certification of operators.
- 4) Establish a baseline and measure improvements in capability with respect to national primary drinking water regulations and State drinking water law.
- 5) Identify persons that have an interest in and are involved in the development and implementation of the capability assurance strategy (including all appropriate agencies of federal, state, and local governments, private and nonprofit public water systems, and public water system customers).

Each year Ohio accomplishes the established objectives and continues to make progress beyond the previous year's achievements. How Ohio is meeting and achieving program objectives is described below.

### **What methods or criteria is Ohio using to identify and prioritize the public water systems most in need of improving technical, managerial, and financial capability?**

#### Priorities

Ohio prioritizes its efforts to public water systems most in need of improving capability as follows:

1. Capability assurance plans for new systems and Water Supply Revolving Loan Account applicants.
2. Completion of capability assurance evaluation forms during the sanitary survey process and evaluation form follow up to rectify capability issues.
3. Work with systems in enforcement to negotiate voluntary capability assurance remedies as part of enforcement actions against significant non-compliers.
4. Work with systems proactively to encourage compliance and continued sustainability using a multiple barrier approach.

### New Systems

Ohio Revised Code 6109.24, 6109.22(M) and Ohio Administrative Code Chapter 3745-87 provide for Ohio's legal authority to implement the new systems program.

All new public water systems must submit a capability assurance plan (CAP) prior to detail plan approval and start-up of the system.

Since the last triennial report submitted September 30, 2008, Ohio EPA activated 22 new community and 28 non-transient non-community public water systems. The activated systems list was reviewed to determine which systems are truly new versus found, existing systems. We determined that 22 systems are new systems. Of the 22 systems, 12 have completed a CAP and 1 will be submitting a CAP in the near future. Of the 22 systems, 9 do not require a CAP because they are new public water systems that are owned and operated by a larger public water system that has already demonstrated capability. Two of these 9 were considered significant non-compliers with federal safe drinking water requirements.

### Water Supply Revolving Loan Account

Capability assurance plans are required for all Water Supply Revolving Loan Account (WSLRA) planning, design and construction loan applicants. One hundred sixteen systems received WSRLA loans in SFYs 2009, 2010 and 2011. All 116 systems had approved capability assurance plans.

### Capability Assurance Evaluations

Ohio prioritizes public water systems with capability concerns by completing Capability Assurance Evaluation Forms during each sanitary survey for community systems with populations of 250 or greater to identify and rectify capability issues. In the past three years, 875 capability evaluation forms have been completed. Follow up actions in the form of Compliance and Operational Review Meetings are held for systems with indications of capability issues.

### Enforcement

Ohio reviews the significant non-complier list, now known as the Enforcement Targeting Tool list, and enforcement priority list to determine who is in need of further technical, managerial and financial assistance. Significant non-compliers and systems listed on the enforcement priority list can benefit from technical assistance provided by Great Lakes Rural Community Assistance Program (RCAP). Some systems will be nominated to the WSRLA for a low interest loan to make necessary repairs or upgrades to their water system. More than 12 WSRLA loans helped water systems to return to compliance during the last triennium.

### Multi-barrier

Additional measures Ohio has identified to improve system capability include adding supplemental environmental projects in enforcement actions to encourage public water systems to improve their system's capability and reduce their penalty. Sixty-five enforcement actions included capability related improvements such as hiring a certified

operator or contract lab, system consolidation, and attending technical, managerial and financial training. Also notable, Ohio is identifying public water systems that have not monitored before the end of the monitoring period and sending reminder postcards encouraging the systems to complete their monitoring and stay in compliance.

### **What are the institutional, regulatory, financial, tax, or legal factors at the federal, state, or local level that encourage or impair capability assurance?**

These factors, incentives, impediments, level and action items are detailed in Appendix A of this report. A listing of the factors considered follows:

- Management
- Maximum contaminant levels and other drinking water requirements
- Taxes
- State and local exemptions
- Federal and state financial assistance
- Political and community rivalries
- Escrow requirements
- Tax base issues
- Federal Emergency Management Agency relief
- Annexation requirements
- Enforceable capability assurance requirements
- Local control issues
- Audit and financial control requirements
- Small systems technical assistance account
- Operator Training Committee of Ohio, Ohio American Water Works Association and other training providers
- Great Lakes Rural Community Assistance Program and other technical assistance providers
- Public Utilities Commission of Ohio authority
- Regional water systems
- U.S. EPA approved Source Water Assessment and Protection program

### **How is Ohio using its authorities and resources to assist public water systems in complying with national primary drinking water standards?**

Ohio has an agreement with RCAP to offer financial and managerial technical assistance to community and non-transient non-community systems that serve less than 10,000 in population.

RCAP held 73 board trainings educating local officials for approximately 450 public water systems over the past three years. These trainings reached 777 utility board members and operators in four courses; Utility Management for Local Officials, Financial Management for Local Officials, Asset Management for Local Officials and Rate Setting for Local Officials. The trainings were all one-day and free for attendees.

Ohio conducts outreach to systems with violations that are in need of capital improvements to invite them to use the WSRLA to receive a low interest loan to return to, or remain in compliance.

Ohio conducts training and presentations to systems impacted by rule or programmatic changes to educate the systems and thereby encourage compliance.

Ohio sends out reminder postcards to systems that have not monitored to remind the system to monitor so the system can remain in compliance with the rules. For example during SFY 2011, over 6,280 reminder postcards were sent and 98 percent of systems then completed the monitoring.

Ohio has six electronic service communications (ListServ) for programs such as Compliance, Drinking Water Assistance Fund, Operator Certification, Rules Update, Underground Injection Control Rules, and LT2/Stage 2 with a total of approximately 2,635 subscribers to disseminate rule and programmatic information.

Ohio completes capability assurance evaluation forms after each community sanitary survey for populations of 250 or greater and completes follow up with systems including Compliance and Operational Review Meetings to encourage system capability.

During SFYs 2009, 2010 and 2011 (until March 31, 2011), Ohio had a small systems technical assistance officer at the Northeast District Office to provide additional technical assistance to small systems.

**How is Ohio using its authorities and resources to encourage the development of partnerships between public water systems to enhance the technical, managerial, and financial capacity of the systems?**

Ohio encourages systems to work together as a part of Ohio Water/Wastewater Agency Response Network which encourages utilities to help utilities in times of emergency.

Ohio has RCAP work with small systems to facilitate regionalization and consolidation ventures, where appropriate.

Ohio encourages systems as part of their Emergency Response Plans to work with neighboring communities.

Ohio works with systems as part of the Small Communities Environmental Infrastructure Group to coordinate system infrastructure projects and disseminates educational materials to systems, stakeholders and interested parties.

## **How is Ohio assisting public water systems in the training and certification of operators?**

Ohio speakers were provided at Ohio Rural Water Association, RCAP, Ohio Training Community of Ohio and American Water Works Association conferences, workshops, seminars and meetings during the 2009, 2010, 2011 time period training over 4,500 people.

Ohio partnered with the Ohio Rural Water Association and RCAP to provide free, regional training to small public water systems (populations of 3300 and under). Topics included preventative maintenance, source water protection, water loss prevention, operator certification, security and emergency preparedness, reporting via eDWR, backflow prevention and funding opportunities. Approximately 450 small systems received training each year during the SFY 2009, 2010, 2011 time period.

During SFY 2009, Ohio provided a series of online training sessions for the new electronic drinking water reporting system (eDWR). Approximately 545 people were trained in reporting using eDWR.

During SFY 2010, Ohio worked in conjunction with U.S. EPA to sponsor two workshops for systems on Stage 2 rules and implementation. Presentations by U.S. EPA staff helped systems complete Initial Distribution System Evaluation Reports. Ohio EPA also held workshops targeting small public water systems, in Columbus, Dayton, Logan, Twinsburg and Bowling Green. Approximately 150 systems attended the workshops.

During SFY 2011, Ohio also provided two free webcasts on the new capacity document entitled, *Planning and Design Criteria for Establishing Approved Capacity for: 1) Surface Water And Ground Water Supply Sources, 2) Drinking Water Treatment Plants (WTPs), and 3) Source/WTP Systems*, attended by approximately 120 water system operators and engineers.

Ohio developed small water system training using an expense reimbursement grant from U.S. EPA. The course is available to all water operators free of charge via the internet.

Ohio is developing a Class I water supply operator training which will be free to operators for use as continuing education or for preparation for the Class I examination.

## **How did Ohio establish a baseline and how are improvements measured in capability with respect to national primary drinking water regulations and state drinking water law?**

Ohio has identified 12 shared goals with U.S. EPA for public health and compliance assurance. Appendix B includes a report on the four goals that are specific to community water systems and show the strides made. Many of the financial, managerial and technical capability measures indicated throughout this report have

contributed to the progress and accomplishment of these goals. Ohio has achieved the the four shared goals that pertain to community systems. The increase in capability assurance initiatives has helped Ohio reduce the amount of community significant non-compliers.

**How does Ohio identify persons that have an interest in and are involved in the development and implementation of the capability assurance strategy (including all appropriate agencies of federal, state, and local governments, private and nonprofit public water systems, and public water system customers)?**

This objective was completed with the finalization of the Ohio Capability Assurance Strategy, approved by U.S. EPA on September 25, 2000. Ohio identified:

- Public water systems
- Lenders
- Public Utilities Commission of Ohio
- WSOS/Great Lakes RCAP
- Ohio Water Development Authority
- Ohio Rural Water Association
- Ohio Section American Water Works Association
- US Department of Agriculture, Rural Development
- US Department of Housing and Urban Development
- US Department of Commerce, Economic Development Administration
- US Army Corps of Engineers
- Ohio Public Works Commission
- Ohio Department of Development
- Ohio Consumers' Counsel
- Ohio Township Association
- League of Women Voters of Ohio
- Ohio Home Builders Association
- Ohio Nursing Home Association
- Ohio Hospitals Association
- Ohio Industrial Association

## **Tracking Ohio's progress**

**What progress is Ohio making in improving the technical, managerial and financial capability of public water systems?**

Over the past three years, from 2009 through 2011:

- Ohio completed 3,537 sanitary surveys.
- Ohio completed 128 enforcement actions.
- Ohio included capability assurance provisions in 65 enforcement actions.
- Ohio completed 875 capability assurance evaluation forms as part of the sanitary survey process.

- Ohio reviewed and accepted nine capability assurance plans for new systems.
- Ohio reviews and tracks compliance and enforcement to determine trends and needed improvements.

### **What problems are Ohio and its public water systems facing most frequently?**

Increasing costs to manage and operate water systems has made it increasingly difficult to maintain capable systems. Some systems are mandated to make system improvements due to new rules or public health issues which results in high water and waste water rates based on the income of their population. Unfortunately, some normal operations and maintenance items are delayed due to lack of funding which can cause capability issues when system functions are not routinely maintained. With the downturn in the economy, rural systems have lost businesses/companies making it more difficult to operate and maintain their system with less user base and income received. Additionally, some systems need to make the difficult decision to consolidate with other water systems which often times leads to apprehension/concern about losing autonomy of the water system and potential rate increases from the supplying system.

There are many new regulations with which systems are trying to comply. Over the past three years, the most notable rule changes affecting Ohio's systems are the Stage 2, disinfection by-products and long term 2 enhanced surface water treatment rules. Often times, the need for modifications result in the undertaking of a major capital improvement project to install new treatment, build a new water treatment plant or regionalize with another water system. Ohio has categorized these systems as "priority systems" and has worked with them utilizing the WSRLA program and enforcement agreements (when necessary) to encourage system changes to stay in or return to compliance.

### **Looking forward**

#### **Identification of new challenges, security concerns, new or pending regulatory requirements.**

The provision of safe drinking water continues to be more complex and challenging. New disinfection by-products regulations will require many systems to add or upgrade treatment facilities. Emerging contaminants such those associated with cyanobacteria raise treatment challenges. Technologies are becoming more complex requiring operators to expand their knowledge.

The WSRLA has two initiatives to encourage capability assurance. The loan program includes a disadvantaged community program which includes low interest loans with terms up to thirty years and some loan principal forgiveness. As a short term goal, the loan program is also incentivizing systems that change their treatment from gaseous chlorine to sodium hypochlorite or like treatment for security purposes.

The WSRLA has also made an effort to include incentives in the SRF point structure for the project priority list to encourage systems to complete asset management plans, source water protection plans, sustainable growth plans, utility board training, water conservation, preventative maintenance, and regionalization/consolidation.

### **Identify Ohio's investment in capability development efforts.**

Ohio has several initiatives which were utilized over the past three years in furthering capability assurance. Most notable is the capability evaluation forms for existing systems with completion of sanitary surveys for community systems with populations greater than 250 people. Using this method helped to identify and track systems with capability concerns. An additional element was added to the capability evaluation form that provides staff the option of requesting capability assistance to small systems. The assistance is provided by RCAP at no charge to the system.

Ohio has worked with RCAP for several years to educate small public water systems with board training for utility management, financial management and asset management/rate setting. For the next three years, Ohio plans to develop and implement online training session on Utility Management for Local Officials and Financial Management for Local Officials.

Ohio also plans to provide assistance to communities identified by Ohio EPA that need intensive technical, managerial and financial assistance; this assistance will be in the form of a Pilot Project, the "RCAP Team Approach" which will assist communities that are in or near violation status and help move them toward compliance status.

Ohio plans to assist small systems which need special attention to help move water system improvement project(s) forward by offering a recently developed short course entitled "Project Development – A short course for Water and Wastewater System Owners" to enrolled communities. This course is designed to help promote consistency in small community project development across the state.

Ohio expects to continue many of the efforts detailed in the report as an investment in capability assurance throughout the state. New initiatives will be evaluated and implemented as time and resources permit.

### **How will Ohio make this report available to the public?**

- Ohio will post this report on our Web site, located at:  
<http://www.epa.ohio.gov/ddagw/financialassistance.aspx>
- Ohio will send out an email through the DWAFF Listserv
- Ohio will send out a news release to the media

## **Conclusion**

Ohio has made great strides during SFYs 2009 – 2011 in our capability assurance strategy. We have achieved accomplishments in all of our stated goals and objectives, and added many new initiatives to further the capability of Ohio's public water systems. In summary, we have implemented the use of capability assurance evaluation forms and Compliance and Operational Review Meetings, increased training sessions for local officials, made improvements in our shared goals with U.S. EPA and increased outreach efforts to existing systems using ListServ and reminder postcards. It is our hope to continue efforts with capability assurance during the next triennium with the quest of becoming a more proactive program than a reactive program and ensure public health protection before drinking water issues impact Ohio's citizens.