

# *Florida's Strategy to Improve Public Water Supply*

*Source and Drinking Water Program  
Division of Water Resource Management  
Florida Department of Environmental Protection  
August 2014*

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## **Executive Summary**

As part of its responsibility as the local administrator of the U.S. Environmental Protection Agency's (EPA) Safe Drinking Water Act (SDWA), the Florida Department of Environmental Protection (DEP) is required to submit a report to the Governor that describes how the agency has been implementing an assistance program called the Capacity Development (CD) Program for drinking water facilities in the state. This report is intended to demonstrate the efficacy of DEP's CD strategy as well as highlight the progress made towards improving the technical, managerial and financial capacities of public water systems in Florida. A main component of the CD program is providing assistance to small drinking water systems to improve their technical, financial and management abilities to operate in compliance with the federal and state SDWA. For instance, DEP is responsible for performing sanitary surveys and compliance inspections on all public water systems to ensure systems are being run efficiently and providing safe, quality drinking water to Florida's residents and visitors. Based on observations made during these inspections, follow-up action may include a combination of enforcement and referral to technical assistance providers who, in turn, work with individual utilities to return the systems back into compliance. In addition, DEP works to optimize the processes of water treatment plants by performing detailed comprehensive performance evaluations (CPE) as part of the Area-Wide Optimization Program (AWOP).

DEP draws on several sources to serve as technical assistance providers, including working closely with certified operators, professional engineers, and training professionals from the Florida Rural Water Association (FRWA). These individuals visit hundreds of small drinking water plants each year to assist in identifying and eliminating potential problems before they affect the facility's performance, as well as working with facilities to improve the operation of their systems so that they may achieve compliance.

Another component of the CD program examines proposed new facilities and their ability to have the technical, managerial and financial capacity to successfully operate and maintain a system and deliver clean drinking water to the public they serve. Permit approval for new facilities is based upon each system's ability to demonstrate adequate capacity development.

For more information on this program, please visit either the [DEP website](#) or the federal [EPA website](#).

## **Introduction**

Pursuant to Section 1420(c)(3) of the 1996 Amendments to the federal Safe Drinking Water Act (SDWA), states are required to “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 initial report was prepared and delivered to Governor Jeb Bush in 2005. The second report was submitted to Governor Charlie Crist in 2008. The third report was submitted to Governor Rick Scott in 2011. This is the fourth report of this series and is due by September 30, 2014, as required by the SDWA Amendments.

The U.S. Environmental Protection Agency (EPA) provides the following definition of capacity:

Water system capacity is the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Capacity has three components: technical, managerial, and financial. Adequate capability in all three areas is necessary for a system to have sufficient “Capacity.”

Technical capacity refers to things such as the provision and operation of source, treatment, storage, pumping and distribution structures. Managerial capacity includes the institutional and administrative capabilities enabling a water system to conduct its affairs such that the system achieves and maintains compliance with requirements. Managerial capacity can be assessed by evaluating such issues as adequacy of maintenance of equipment and records, operating procedures, staffing and relationships with customers and other outside entities. Financial capacity is the ability of a water system to acquire and manage sufficient financial resources to enable the system to achieve and maintain compliance with requirements.

EPA provides the following definition of capacity development:

Capacity Development is a State effort to help drinking water systems improve their finances, management, infrastructure, and operations so they can provide safe drinking water consistently, reliably, and cost-effectively. More specifically, the capacity development provisions provide an exceptionally flexible framework within which States and water systems can work together to

ensure that systems acquire and maintain the technical, financial, and managerial capabilities to consistently achieve the health objectives of the 1996 Federal Safe Drinking Water Act.

The 1996 federal SDWA provides for two types of efforts involving capacity development: New Systems Capacity Development and the Capacity Development Strategy for Existing Systems. New Systems Capacity Development is specifically described in the *Capacity Development Program for New Public Water Systems* subsection of this report; it is part of Florida's overall Capacity Development Strategy. Florida's actions to assist existing systems are described in the *Public Water System Supervision Program Enhancements Relating to the Capacity Development Strategy for Existing Public Water Systems* subsection of this report.

The Public Water System Supervision (PWSS) Program within the Florida Department of Environmental Protection (DEP) submitted its Capacity Development Strategy to EPA in May 2000; it was approved in September 2000. Florida's strategy involves a wide-ranging set of programs and activities to help ensure that public water systems improve their financial, technical and managerial capabilities. Many of the organizations and programs included in the strategy existed before the formal Capacity Development Program was established. The following organizations and programs have been instrumental in implementing Florida's Capacity Development Strategy since initial EPA approval:

- Florida Department of Health (DOH) Public Drinking Water Program
- Florida Rural Water Association (FRWA)
- DEP Drinking Water State Revolving Fund Program
- DEP Certification and Restoration Program
- Florida Public Service Commission (PSC)
- Florida's Water Management Districts
- Florida Department of Economic Opportunity, Community Development Block Grant Program
- Florida Division of Emergency Management
- Southeast Rural Community Assistance Project

DEP Plant Operations Excellence Awards

This report details certain notable components of the Capacity Development Strategy, including the roles of some of the entities listed above. Contact information for these entities is included in

Appendix A. Other information is available on the [DEP's Division of Water Resource Management website](#).

“Department” refers to the organizations that administer the PWSS Program. They include the PWSS Program within DEP’s Source and Drinking Water Program and the eight Approved County Health Departments that have received delegation to administer the program in their counties.

“Subpart H” systems are systems that are regulated under the Code of Federal Regulations (CFR), Title 40, Part 136, Subpart H. Systems that use surface water or groundwater under the direct influence of surface water are Subpart H systems. In general, water under the direct influence of surface water is not sufficiently protected from contamination by surface water. Direct influence is determined for individual sources in accordance with criteria established by DEP rules.

## **Public Drinking Water System Supervision Program Implementation**

### ***Capacity Development Program for New Public Water Systems***

Capacity development is an initiative to ensure that drinking water systems acquire and maintain adequate technical, managerial and financial capabilities to enable them to consistently provide safe drinking water.

As part of the 1996 amendments to the federal SDWA, the U.S. Congress mandated that states set up such programs to ensure the capacity of new community water systems (CWS) and new non-transient non-community water systems (NTNC). In general, CWSs serve year-round residents, and NTNCs typically serve businesses and schools. Florida’s program fulfills the congressional requirement.

EPA also provides a definition of “new system.” For the purposes of capacity development, a new CWS or NTNC is a system which:

- 1) Was constructed on or after October 1, 1999, or
- 2) Started operating on or after October 1, 1999, or

- 3) Was a non-regulated public water system which added infrastructure on or after October 1, 1999, to become a NTNC or CWS Non-regulated public water systems which simply add additional users and thereby become NTNCs or CWSs are not considered new systems for the purposes of capacity development.

Florida's program uses EPA's new system definition and also addresses interconnected systems, replacements of existing systems, discovered systems, changes of ownership, changes from inactive to active status and infrastructure addition. Rulemaking to adopt these additional circumstances into the Florida Administrative Code (F.A.C.) was completed in 2006.

Florida's program requires that new NTNCs and new CWSs undergo a capacity assessment by DEP. Affected systems must demonstrate acceptable capacity in order to receive a construction permit or clearance for use.

The following excerpt from Rule 62-555.525, F.A.C., includes the fundamental requirements that new water systems must meet for purposes of the Capacity Development Program:

*(3) Demonstrations of financial, managerial, and technical capacity for "new systems" shall contain the following:*

*(a) Documentation that the owner of the "new system" holds, or will hold, an operator license sufficient to fulfill the staffing requirements in Chapter 62-699, F.A.C., or that the "new system" employs, or will employ, licensed operators to fulfill the staffing requirements in Chapter 62-699, F.A.C.*

(b) A demonstration that the "new system" has, or will have, the capability to conduct the monitoring and reporting required under Chapter 62-550, F.A.C., and the capability to maintain the records required under Chapter 62-550, F.A.C.

(c) A demonstration that the "new system" has, or will have, the capability to meet the operation and maintenance requirements in this chapter.

(d) A demonstration of financial and managerial capacity.

A summary of the requirements of Florida's New Systems Capacity Development Program for typical cases follows:

- New CWSs and NTNCs are subject to an assessment of their capacity as part of the permitting process. Technical capacity is assessed through review of engineering documentation during the construction permitting process. DEP will deny the permit application of any system that does not document acceptable technical capacity. Financial and Managerial capacities are assessed through review of a required Financial and Managerial Operation Plan. (A copy of the form used to prepare this report is included as Appendix B.)
- DEP inspects each newly constructed CWS and NTNC for compliance with drinking water rules before allowing it to begin operation; no system is allowed to operate until any deficiencies are corrected.
- CWSs and NTNCs which start operating on or after October 1, 1999, must submit an updated Capacity Development Financial and Managerial Operation Plan to DEP three years after operations begin.
- Systems which are regulated by the PSC, which already imposes equivalent financial requirements, are not required to complete additional financial information for DEP.

Between October 1, 1999 and the last triennial report (September 2011), 391 system applicants were subject to the New Systems Capacity Development Program requirements. The vast majority of the affected systems (384) made successful demonstrations initially or after responding to DEP request(s) for additional information. More than 30 applicants decided not to open public water systems after being notified of the New Systems Capacity Development Program.

In the last three-year period, beginning October 1, 2011, 333 systems have been subject to the New Systems Capacity Development Program requirements. Approximately 20 systems decided not to open public water systems after being notified of the New Systems Capacity Development Program.

As noted above, DEP will deny the construction permit for a drinking water system, or will not otherwise allow that system to operate, if it fails to demonstrate acceptable capacity. New



systems must submit an updated Financial and Managerial Operation Plan three years after the commencement of operations to demonstrate that it has maintained adequate capacity. Systems not meeting capacity requirements will be subject to enforcement.

***Public Water System Supervision Program Enhancements Relating to the Capacity Development Strategy for Existing Public Water Systems***

As of June 30, 2014, there were 5,327 active public water systems in Florida: 1,665 CWSs, 803 NTNCs, and 2,859 transient, non-community water systems (TWS). DEP conducts programs to assist all of Florida's public water systems in complying with rules and regulations. Those programs include water system inspections, technical assistance by both DEP and the FRWA, and EPA Region 4 Area-Wide Optimization Program.

***Water System Inspection Program***

DEP's sanitary survey process aids public water systems in achieving and maintaining capacity. In accordance with federal regulations and grant conditions, DEP is responsible for performing sanitary surveys on CWSs and NTNCs every three years, and on TWSs every five years. As a program goal, DEP strives to conduct a compliance inspection every year for the years between sanitary surveys.

Part 40, Paragraph 142.16(b)(3) of the CFR, contains requirements for enhanced sanitary surveys for subpart H systems, which are those that use or treat surface water either directly or from groundwater wells deemed "under the direct influence" of surface water. These sanitary surveys must be performed at least every three years for CWSs and NTNCs and at least every five years for TWSs. The first round of enhanced sanitary surveys began in September 2002.

During a sanitary survey, DEP inspectors are required to inspect and address the following eight elements:

1. Source;
2. Treatment;
3. Distribution system;
4. Finished water storage;
5. Pumps, pump facilities, and controls;
6. Monitoring and reporting and data verification;
7. System management and operation; and

## **8. Operator compliance with state requirements**

The DEP's sanitary survey inspections for groundwater systems are regulated under 40 CFR 142.16(o)(2)(iii) and by grant conditions. Current surveys are performed using a format that now includes the eight elements specified in federal regulations. To formalize ground water survey requirements, DEP has adopted and incorporated the federal Ground Water Rule into the F.A.C. The Source and Drinking Water Program has also identified deficiencies deemed to be "significant" and includes the rigorous corrective action procedures specified in the federal regulations.

To formalize ground water survey requirements, DEP has adopted and incorporated the federal Ground Water Rule into the F.A.C. The Source and Drinking Water Program has also identified deficiencies deemed to be "significant" and includes the rigorous corrective action procedures specified in the federal regulations.

The elements of the DEP's compliance inspections differ from system to system, depending upon system type, size and complexity and compliance history. Generally they are conducted in less depth than a sanitary survey but include an assessment of at least the following:

- 1. Compliance issues;**
- 2. Sanitary hazards;**
- 3. Wells and pumps;**
- 4. Treatment (primarily disinfection);**
- 5. Operations and maintenance; and**
- 6. Water quality.**

The DEP furnishes the system with a record of the inspection results along with recommendations. If there are deficiencies, the length of time the system has to correct those deficiencies is stated. If the system does not correct the stated deficiencies within the stated time, DEP will begin enforcement in order to ensure that the deficiencies are corrected. In most cases, systems correct deficiencies soon after they are notified. Systems use the inspection results and DEP's technical and regulatory expertise as a source of information as they continually improve their system. In many cases, recommendations for technical assistance may be made. For instance, DEP representatives may provide advice on water quality sampling or other topics or

refer the system to the FRWA for assistance in setting rates, board member training and how to use management tools like the CUPSS software program, (a checkup program for small systems).

The inspection program is a significant tool for DEP to ensure the capacity of public water systems and is continually being improved. Week-long training sessions including on-site work are held annually for all interested inspectors. The sanitary survey forms are regularly being improved with capacity development in mind. Internal audits of each office's inspection programs are performed annually.

Specifically relating to DEP's capacity development efforts, a sanitary survey policy has been added stating that systems whose inspection results are "out of compliance" must be referred to the FRWA if the inspector determines that the system might benefit from technical assistance. This requirement helps ensure that the FRWA will have the opportunity to assist the systems most in need.

***Technical Assistance - Florida Rural Water Association***

Since 1990, the FRWA has been under grant or contract to DEP to provide technical assistance to public water systems serving less than 10,000 persons. Originally there were only three Drinking Water Circuit Riders. Over the years, additional positions were added, and FRWA currently serves these systems with six Circuit Riders, one Professional Engineer, an Assistant Engineer, one Trainer and a supporting Financial/Managerial staff. Included as Appendix C is a description of activities performed by the FRWA under contract to DEP. This summary shows that the FRWA makes many important contributions to the DEP's permitting, compliance and enforcement activities. For example, systems have the opportunity to work with the FRWA to resolve potential compliance problems before they impact the environment or the safety of Florida's residents.

The services provided under a contract agreement with DEP are free to public water systems, with the exception of a few services such as loaning of equipment. Systems may request assistance directly from the FRWA, they may volunteer to help systems, or DEP may refer systems. It is not necessary to be a member of the FRWA to receive assistance under DEP's contract agreement.

Each Circuit Rider travels to water systems throughout the state each month. Circuit Riders are certified operators, and assistance they provide usually relates to the technical aspects of water system operations, but sometimes they provide assistance with rate studies and other financial or managerial matters. Most technical visits are related to helping water systems remain in or achieve compliance. Over the last year, the Circuit Riders made 3,267 technical assistance visits, of which 2,761 or 85 percent resulted in a return to compliance for the water systems.

Water Trainers provide comprehensive technical assistance and training to water systems using surface water and to groundwater systems with complex treatment. Specifically, during fiscal year 2013-14, this position has:

- Developed, established and held more than 50 water treatment plant operator certification sessions for groundwater and surface water plants, with 2,086 attendees giving Continuing Education Units to 208 operators to help them maintain their operator licenses. These sessions help reduce the shortage in effective, needed water treatment operators at facilities and allows for protection of public health.
- Developed, established and held nine water distribution operator training sessions, including 12 Drinking Water Certification Review classes.
- Developed an initial plan to train operators on how to evaluate and calculate compliance with the rules for new disinfection requirements.
- Assisted the DEP in the evaluation of disinfection byproducts compliance issues.
- The Financial/Managerial staff provide assistance with financial and managerial capacity development. Specifically, this staff has:
  - Developed and established the Water University/National Rural Water Association Utility Management Certification Program for improving managerial capacity, competency and effectiveness among utility managers.
  - Utilized experienced and effective professionals to provide Utility Board Member Training to increase the board members' competency and understanding of fiduciary responsibilities necessary to provide the public with safe and reliable drinking water.
  - Developed and held Asset Management Workshops to increase knowledge of preventative maintenance and prudent safeguarding of public infrastructure.
  - Developed, established and published standard Utility Management Policies for setting policies and procedures that enable utilities to fulfill their missions.

- Assisted numerous systems in setting Rates and Impact Fees that account for actual cost of services and continuing preventative maintenance without relying on governmental grants/loans to replace infrastructure.
- Prepared Water Audits, or analyses of water losses and unaccounted-for water to reduce the potential for lost revenues.
- Encouraged water conservation and provide implementation recommendations.
- Assisted systems in finding dependable sources for grants and loans for utility projects, including short-term, interim and long-term financing options.
- Assisted with Long Range Planning/Capacity Analysis, specifically the evaluation of remaining treatment capacity as a management tool to address timing of future expansions, regulatory compliance, impact fees, planning, funding, engineering design, permitting and construction.
- Provided assistance with a myriad of utility operation and compliance assistance concerns to help utilities stay effective, including:
  - o Customer relations/services
  - o Public notices
  - o Consumer confidence reports
  - o Operation and maintenance manuals
  - o Emergency response planning
  - o New management tools and software

Two engineering positions assist approximately 150 water systems statewide annually with challenges related to minor permitting, compliance, potential compliance, water quality, security, health, environmental issues, capacity analysis, areas of operation, maintenance and management, and issues related to providing safe, ample and reliable water to Floridians.

Specific activities include:

- Assisting with water resource development, alternative water supply projects and water supply and treatment issues.
- Assisting in compliance with the SDWA, federal and state rules, including providing regulatory updates and assistance.
- Designing and permitting projects for small drinking water systems to correct capacity development or compliance problems.

- Reviewing plans and specifications submitted to DEP's Drinking Water State Revolving Fund program for cost effectiveness and efficiency.
- Providing technical advice on water treatment, water quality and hydraulics, and troubleshooting system problems.
- Assisting with utility capital improvement planning, feasibility, cost estimates, emergency response planning, asset management, preventative maintenance, operation and maintenance, conservation and customer relations/services

As an example of their workload, the two engineers assisted systems on 757 engineering projects during the last year, sometimes completing multiple projects for the same system.

Since promulgation of the federal capacity development requirements, the FRWA has continually responded to our directives relating to improving the capacity of water systems. Indications of the efficacy of the FRWA's efforts are the many letters of praise from water system representatives. An example is an excerpt from a February 2014 letter from a northwest Florida utility representative: "Florida Rural Water Association provides an opportunity for small water systems like ours to deliver world class water to our many valued customers."

The FRWA also helps water systems improve their capacities through work performed under funding from entities other than DEP. DEP will sometimes recommend that the FRWA provide capacity-development-related services through these alternate funding sources. Entities other than DEP providing funding to the FRWA include Association members, National Rural Water Association, EPA, and the Rural Development mission area of the U.S. Department of Agriculture. The FRWA also employs an EPA Training/Technical Assistance Specialist that conducts training sessions on compliance subjects throughout the state.

The FRWA provides training sessions on various topics year-round in locations throughout the state. Between October 1, 2011 and June 30, 2014, the FRWA held 363 training sessions with 9,242 attendees. Available training sessions are listed on the FRWA website, and some of them carry continuing education units toward operator certification. Examples of training sessions currently posted are: treatment technologies and conservation and emergency response plan seminars for CWSs.

The FRWA also offers online training courses; examples are chlorinator maintenance and pumps and motors. Persons studying for operator certification exams can take exam preparation courses. Attendees who took recent exams had a pass rate of 36 percent for the Class A exam, 53 percent for the Class B exam, 57 percent for the Class C exam and 62 percent for the Class D exam. Yearly "Focus on Change" seminars provide a full day of information at each session. DEP representatives inform the attendees about the latest regulatory changes and provisions, and representatives of DEP or other entities hold sessions on pertinent topics such as disaster preparedness and disinfection calculations. The 2014 Focus on Change seminars took place in six cities and drew 1,711 attendees.

***Source and Drinking Water Program (SDWP) Capacity Development 2013 Revitalization Initiative***

In April 2013, SDWP kicked off its Capacity Development (CD) Revitalization Initiative to improve the capacity of both existing and new systems. A workgroup was formed with representatives from DEP district offices and DOH county health departments, FRWA PSC and DEP's Operator Certification and DEP's State Revolving Fund Programs. The group was charged with making and implementing improvements to DEP's CD strategies.

Workgroup meetings were held in April, July and August of 2013. The group's final recommendations included:

- 1) Modification to permit specific conditions for new systems;
- 2) Modification to the construction permit CD form demonstrating a new system has the managerial, technical and financial capacity;
- 3) Modification to the referral system of problem systems to the FRWA;
- 4) Development of checklists for new systems dealing with the SDWA minimum requirements;
- 5) Development of frequently asked questions and answers;
- 6) Development of new reference materials for systems on burden reduction opportunities;
- 7) Publishing of several articles in DEP's *Floridan* newsletter about burden reductions and the CD changes noted above;
- 8) Developing an automated three year reminder system for DEP's field offices for the follow-up CD demonstrations required under the SDWA;

- 9) Initiation of working with organizations to promote opportunities for Florida's service veterans in the water arena; and
- 10) Enhancing DEP's webpage to make many of the aforementioned programs and documents available to systems and the public.

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

Under the AWOP, a team of regulators from EPA Region 4 and state programs follow protocols developed by EPA's Technical Support Center to methodically assess the ability of water systems to meet key optimization performance goals for disinfection and filtration to enhance microbial and disinfection byproduct control at treatment plants. Utilizing a series of established investigative techniques, the AWOP team can evaluate specific system components and practices, present the findings to the water systems and encourage the water systems to use the results to optimize their water systems. The DEP originally utilized this program as a means of giving close evaluation of, and assistance to, public water systems in Florida whose sources are surface water. Recently, the AWOP protocol has been expanded and DEP can also assist groundwater systems and consecutive systems with a history of disinfection byproducts problems in their distribution systems. This will be especially important as the Stage 2 Disinfection Byproducts Rule is fully implemented.

DEP's participation in the AWOP began in 2002. By participating in multi-state microbial comprehensive performance evaluations (CPE) in Alabama, Georgia, and North and South Carolina, and hosting two in-state comprehensive performance evaluations at North Port and Cocoa, Florida, four team members received certifications as CPE evaluators. However, only three active team members currently remain. Additional CPEs were conducted utilizing only Florida evaluators at surface water plants at South Bay, Cedar Key, Steinhatchee, Pahokee and Lee County Utilities. In June 2011, DEP conducted its first disinfection byproduct CPE at a groundwater plant in Cocoa, Florida. In 2013 and 2014, Florida attended CPEs in South Carolina, North Carolina and Alabama. As a result of this attendance, Florida anticipates having an additional CPE-certified team member by the end of 2014. In March 2014, Florida hosted the Region 4 AWOP Planning Meeting in Tampa. This was used as an opportunity to introduce the AWOP and its concepts to new staff recently brought into the drinking water program.



Over the years, DEP has built up an inventory of field equipment to facilitate CPEs. This equipment, and the knowledge of the certified CPE evaluators, will be utilized in the future to conduct microbial CPEs at all Subpart H treatment systems within the state. In addition, the Florida AWOP will identify candidates for Distribution System (disinfection byproduct) Comprehensive Performance Evaluations by reviewing analytical results for trihalomethane and haloacetic acid in the distribution systems of surface water, groundwater and consecutive systems that DEP's district and county offices identify as possibly needing additional assistance in meeting the requirements of the Stage 2 Disinfection Byproducts Rule.

As a result of the CPEs done at surface water plants throughout the states, it was determined that operators at surface water plants need specialized training to adequately manage their coagulation and sedimentation processes. Additional training for surface water plant operators is necessary to improve filter backwash practices so that filters can meet the requirements of the surface water treatment rules. The regional AWOP program has developed a Performance Base Training package that would help surface water plant operators improve their methods. It is the intent of the Florida AWOP program to initiate Performance Base Training sessions throughout the state to assist operators in achieving the necessary competence level to effectively operate surface water treatment plants.

Over the last several years, many other states have implemented an Annual AWOP Award/Certification Program that they use to reward and recognize those plants which are able to meet the AWOP optimization goals for microbiological and disinfection byproduct control. It is the goal of Florida's AWOP Program to begin implementing an AWOP Award Program beginning in 2015.

In Florida, unlike some other states, operators are not specifically tested and certified to be surface water plant operators. Because of this, systems hire operators that may not be appropriately trained. Several small surface water plants have closed in recent years because the operators and the owners were not technically competent to run their plants. The AWOP program is an important vehicle that helps overcome this deficiency.

## **Recommendations and Conclusions**

DEP's Capacity Development Strategy is working effectively to help ensure the capacity of public water systems; however, to improve the Strategy, DEP plans to refine the components described above. Examples of successful Strategy components include the programs discussed in this report.

The inspection program helps systems achieve and maintain capacity through regular inspections, follow-up actions and technical assistance.

The technical assistance provided by the FRWA enables systems to improve their viability through non-regulatory means. These services are free to the public, cover a wide range of financial, managerial and technical topics, and are provided at the water system being assisted. DEP's monitoring of the work provided and receipt of favorable reviews from the public assures us of the success of this program.

The AWOP work performed so far has been successful in terms of providing comprehensive assessments and identifying inexpensive, yet effective, changes that water systems can make to optimize their processes. Clear optimization goals for both microbial and disinfection byproduct control have already been established. Moving forward, DEP plans to ensure these optimization goals are clearly communicated to systems so they may be implemented by water system staff to improve their ability to comply with federal requirements. In addition, Performance Based Training sessions will be developed to provide training to surface water treatment plant operators who would benefit from surface water-specific issues and solutions. Finally, DEP will continue to perform microbial comprehensive performance evaluations at surface water treatment plants, and plans to increase the number of distribution system (disinfection byproduct) comprehensive performance evaluations when candidates are identified in order to help systems operate effectively and efficiently.

DEP's Source and Drinking Water Program plans to continue these programs, as they are directly related not only to capacity development but also to the core mission of the Program. The core mission is to provide safe drinking water and effectively manage water resources, thus protecting public health. Each program element listed in this report is a part of a framework of capacity development-related efforts. This framework of initiatives results in many types of

opportunities for systems to improve their capacity. Florida's capacity development strategy is improving the abilities of public water systems to manage their resources, operate their systems, and protect the health of Florida's residents and visitors.

## **Appendix A: Contact Information**

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Florida Department of Environmental Protection

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## **Appendix B: DEP Form 62-555.900(2)**

[DEP Form 62-555.900\(20\) – New Water System Capacity Development Financial and Managerial Operations Plan](#)

## **Appendix C: Florida Rural Water Association Activities**

### ***DRINKING WATER PERMITTING PROGRAM***

#### ***PROGRAM AREA 1***

Education for systems about Department requirements

#### ***TYPICAL RELATED SERVICES PROVIDED BY FRWA***

Individualized on-site training in topics such as bacteriological sampling

#### ***PROGRAM AREA 2***

Completion of permitting documents

#### ***TYPICAL RELATED SERVICES PROVIDED BY FRWA***

- Assistance with completion of renewals of water management district consumptive use permits and DEP construction permits
- Assistance with completion of permit applications related to the operations of drinking water systems.
- Assistance with completion of permit applications for some projects where the sanitary survey states that a part of the facility is in use without the proper permit.
- Assistance in compliance related project permitting, preliminary engineering reports (PERs), and engineering related to effective and affordable projects to attain compliance and receive project funding.

#### ***PROGRAM AREA 3***

Water source planning

#### ***TYPICAL RELATED SERVICES PROVIDED BY FRWA***

Using non-Department sources of funding, assistance to communities with the planning process to find new sources of water to replace sources that are no longer desirable.

#### ***PROGRAM AREA 4***

Under the Direct Influence of Surface Water technical assistance and well evaluation

#### ***TYPICAL RELATED SERVICES PROVIDED BY FRWA***

Identification of well maintenance and rehabilitation methods for wells that the Department has determined to be Under the Direct Influence of Surface Water.

#### ***PROGRAM AREA 5***

Obtaining SRF and other funding

#### ***TYPICAL RELATED SERVICES PROVIDED BY FRWA***

FRWA helps systems apply for such funding.



## **DRINKING WATER COMPLIANCE PROGRAM**

### ***PROGRAM AREA 1***

Education for systems about Department requirements, including maximum contaminant level (MCL) and treatment technique requirements

#### **TYPICAL RELATED SERVICES PROVIDED BY FRWA**

Individualized onsite training in topics such as bacteriological sampling.

- Small-group training: Each Circuit Rider is expected to hold at least a minimum number of such training sessions.
- Focus on Change seminars: Yearly seminars for operators and other interested persons. They are held at several cities. In 2011 there were 1,380 attendees. These seminars include topics in drinking water and wastewater rules and operations.
- Training provided using funding from non-Department sources: Small-group training sessions for operators and other interested persons on an as-needed basis throughout the state. The subjects of sessions conducted in the past include operator certification review, water conservation and beneficial use, water chemistry, introduction to operations, how to prepare for a Department sanitary survey inspection and corrosion control.
- Annual technical conference and joint technical conferences with other states: Open to FRWA members and nonmembers.
- Consumer confidence reports (CCRs): Individual assistance and training workshops in addition to the Department workshops.
- Lead and copper: Individual training on measuring water quality parameters, conducting desktop studies using software and making corrective action recommendations to systems. In some cases, FRWA has also assisted systems with permit applications, as mentioned above under permitting.
- Assistance with other compliance related concerns including D-DBP rules, GWR, and other DEP/SDWA regulation

### ***PROGRAM AREA 2***

Long-term viability of water systems

#### **TYPICAL RELATED SERVICES PROVIDED BY FRWA**

- FRWA provides rate reviews. FRWA provides management assistance/training and reviews to improve water system viability
- Assistance with obtaining SRF and other funding – refer to listing above under permitting.

### ***PROGRAM AREA 3***

Sanitary surveys

#### **TYPICAL RELATED SERVICES PROVIDED BY FRWA**

Department representatives often refer FRWA to systems that have sanitary survey deficiencies. FRWA helps the systems to correct the deficiencies by providing training. FRWA also provides training classes for water system operators to show them how to prepare for a sanitary survey.

### ***PROGRAM AREA 4***

Groundwater protection and source water assessment program

#### **TYPICAL RELATED SERVICES PROVIDED BY FRWA**

The groundwater protection component of the FRWA/Department contract provides for the groundwater specialists to develop Wellhead Protection Plans/Source Water Plans for systems throughout the state. Thus, a number of sources of drinking water are better protected from contamination.

**PROGRAM AREA 5**

Short-term viability of water systems

**TYPICAL RELATED SERVICES PROVIDED BY FRWA**

FRWA provides individualized on-site assistance and training.

**DRINKING WATER ENFORCEMENT PROGRAM**

**PROGRAM AREA 1**

Sanitary survey deficiencies

**TYPICAL RELATED SERVICES PROVIDED BY FRWA**

Department representatives often refer FRWA to systems that have sanitary survey deficiencies that may be under enforcement. FRWA helps the systems correct the deficiencies by providing training.

**PROGRAM AREA 2**

Monitoring problems/other

**TYPICAL RELATED SERVICES PROVIDED BY FRWA**

Department representatives often refer FRWA to systems that have failed to monitor. FRWA helps the systems correct the deficiencies by providing training about rule requirements and field sampling procedures. On site services to help address problems which have systems on the Department Return to Compliance (RTC) list.

**EMERGENCY MANAGEMENT PROGRAM**

**PROGRAM AREA 1**

Drinking water drought management

**RELATED SERVICES PROVIDED BY FRWA**

Department representatives often refer FRWA to systems that have water shortages due to excessive well drawdown. FRWA helps the Water Management Districts identify systems in need of special assistance by taking field measurements of well pumping levels to establish regional trends. Perform water audits, leak detection, conservation plans and other water use reduction activities.

**PROGRAM AREA 2**

Hurricane damage at drinking water and wastewater facilities

**RELATED SERVICES PROVIDED BY FRWA**

FRWA assists systems that have suffered storm damage by making on-site inspections and helping systems to maintain operational status.

**DRINKING WATER/DOMESTIC WASTEWATER OPERATOR CERTIFICATION AND STAFFING PROGRAM**

**PROGRAM AREA 1**

Operator Certification

**RELATED SERVICES PROVIDED BY FRWA**

- Operator certification review training (see listing above under Compliance).
- Training allows operators to earn continuing education units which are essential for maintaining certification.

**PROGRAM AREA 2**

Operator Capability

**RELATED SERVICES PROVIDED BY FRWA**

Many services provided by FRWA listed above under permitting, compliance and enforcement enable operators to improve in their abilities to operate water systems.