

# State of Delaware Capacity Development Program Implementation Report and Annual Review 2018



DELAWARE HEALTH AND SOCIAL SERVICES  
Division of Public Health  
Office of Drinking Water

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## **Executive Summary**

*The State of Delaware Annual Capacity Development Program Implementation Report and Annual Review, 2018* details the State of Delaware's implementation of its Capacity Development Program and how it meets the public health protection objectives of the 1996 Amendments of the federal Safe Drinking Water Act (SDWA). Under Section 1420(a) of the SDWA, Delaware must implement both Capacity Development Authority and Capacity Development Strategy Programs to maintain full funding of the Drinking Water State Revolving Fund (DWSRF) capitalization grant. If Delaware does not implement these programs, the United States Environmental Protection Agency (EPA) has the ability to withhold up to 20% of Delaware's allotment for the DWSRF capitalization grant entitled under Section 1452 of the SDWA.

Since implementing the 1996 Amendments to the SDWA, Delaware's Capacity Development Program has consistently improved and evolved into the program it is today. Due to population growth and an increase in the number of residential communities, new public water systems are continually being reviewed and added to Delaware's inventory of public water systems that operate with regulatory oversight. Technical, managerial and financial capacities of public water systems are regularly evaluated and monitored. Currently, the ODW monitors 489 public water systems.

The SDWA requires that a report be delivered to the EPA on the ongoing implementation of the Capacity Development Program in Delaware and the progress made toward improving the technical, managerial, and financial capacity of public water systems in the state every federal fiscal year. The reports are available to the public on ODW's page of the DPH website:

<http://www.dhss.delaware.gov/dhss/dph/hsp/annrepdw.html>.

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**STATE OF DELAWARE**  
**CAPACITY DEVELOPMENT PROGRAM IMPLEMENTATION REPORT**  
**AND ANNUAL REVIEW**  
**October 1, 2017 – September 30, 2018**  
**Federal Fiscal Year 2018**

**I. Capacity Development Authority (New Systems Program)**

Per Section 1420(a) of the Safe Drinking Water Act (SDWA), Delaware is empowered with the legal authority to ensure that all new community water systems (CWSs) and new non-transient non-community water systems (NTNCWSs) commencing operation after October 1, 1999, demonstrate technical, managerial, and financial capacity with respect to each national primary drinking water regulation in effect, or likely to be in effect, on the date of commencement of operations. This authority is contained in 16 Delaware Code § 122(3)(c).

**1. Legal Authority**

Delaware's legal authority (statutes and regulations) to ensure that all new CWSs and new NTNCWSs commencing operation after October 1, 1999 demonstrate technical, managerial, and financial capacity with respect to each national primary drinking water regulation in effect, or likely to be in effect, on the date of commencement of operations for new public water systems (PWSs) has not changed from previous reporting years.

**2. Control Points for New PWSs**

Delaware uses several control points to initiate contact with a potential PWS to ensure their capacity. These control points have not changed from previous reporting years. They are:

- New well permits: Through an agreement with the Delaware Department of Natural Resources and Environmental Control (DNREC), new well permits for public wells are sent to the Office of Drinking Water (ODW) via an electronic alert system.
- Child Care Facility plan review and licensing: The Delaware Department of Health and Social Services, Division of Public Health (DPH), Health Systems Protection; and the Department of Services for Children, Youth and their Families, Office of Child Care Licensing (OCCL) notifies the Capacity Development Program of new child care facilities that may become PWSs.
- Planning and Land Use Service process: Each county sends information to the Office of Engineering (OE) regarding new housing developments in their counties or other projects that may result in a new PWS. In turn, OE informs the Capacity Development Program of any pending new PWSs.

- ODW staff: ODW staff identify potential new PWSs as they perform their field work. These are referred to the Capacity Development Program for follow-up action as necessary.
- PWS plan review: Plans submitted to the OE will not receive a Certificate of Approval to Construct (CAC) until a New Public Water System Application is received, reviewed, and approved by the Capacity Development Program.
- Food establishment plan review: Plans submitted to DPH's Office of Food Protection include a PWS information form to be completed by the applicant, so that ODW staff can determine if the facility will be a PWS, and the likely PWS classification, within which it will fall.
- Certificate of Public Convenience and Necessity (CPCN): CPCNs are issued by the Delaware Public Service Commission. Copies of applications for CPCNs are sent to the Capacity Development Program. Based on the compliance history of the utilities, recommendations are made to approve or deny the CPCN.
- Direct inquiries from potential applicants: Water providers who have previously submitted applications for new PWSs contact the Capacity Development Program directly when considering construction of a new PWS.
- Application and Planning Manual for New Water Systems: This manual explains the procedure for obtaining a CAC and Certificate of Approval to Operate (CAO). A CAC may be issued based on the information obtained in the application and construction plans and a preliminary evaluation of the technical, managerial, and financial capability of the candidate PWS. When construction is complete, a site visit is done to conduct an initial sanitary survey, verify proper construction of the PWS, and collect water samples. The facility must demonstrate adequate technical, managerial, and financial capacity, and any significant deficiencies from the initial sanitary survey must be corrected before a CAO is issued.
- New Public Water System Capacity Development Screening Meeting: After a prospective new PWS completes the New Public Water System Application, ODW conducts an in-person meeting with the prospective PWS owner. The purpose of the meeting is to assess whether prospective new PWSs will have the technical, managerial, and financial capacity to provide safe drinking water. Discussion topics in this meeting include details of the responses in the application; the expectations of the specific classification of PWS proposed; and the relationship between ODW, the prospective PWS, and public health. Assistance is also provided for any issues related to PWS start-up.

### 3. New PWS Compliance Status: October 1, 2015 through September 30, 2018

New PWSs are monitored for compliance for a period of three years after they are activated. Table 1 lists the new PWSs that were monitored by the Capacity Development Program between October 1, 2015 and September 30, 2018.

**Table 1. Compliance Status of new Public Water Systems by Federal Fiscal Year, Delaware, October 1, 2015 – September 30, 2018.**

Public Water System (Identification Number, Type)	Date Activated	Compliance Status		
		FFY 2016	FFY 2017	FFY 2018
<b>FY2016</b>				
<b>Byler's Store (West Dover) DE0020074, NTNCWS</b>	10/30/15	In Compliance	In Compliance	In Compliance
<b>Lighthouse Point and Community Center DE00A0781, NTNCWS</b>	09/21/16	In Compliance	In Compliance	Lead and Copper Rule Monitoring Violation – Aug 2018
<b>Willey Farms** DE0020086, NTNCWS</b>	09/21/16	In Compliance	In Compliance	In Compliance
<b>FY2017</b>				
<b>Ingram Village (AWC) DE0020052, CWS</b>	12/20/16	NA	In Compliance	In Compliance
<b>Ponds of Odessa (AWC) DE0020088, CWS</b>	12/20/16	NA	In Compliance	In Compliance
<b>Lullaby Learning Center DE0020092, NTNCWS</b>	09/28/17	NA	In Compliance	In Compliance
<b>FY2018</b>				
<b>Mountaire Farms Corporate Office DE0020098, NTNCWS</b>	01/10/18	NA	NA	In Compliance
<b>Smyrna Head Start DE0020095, NTNCWS</b>	01/11/18	NA	NA	In Compliance
<b>Centreville Layton School DE0020094, NTNCWS</b>	02/15/18	NA	NA	In Compliance
<b>Coolspring Headstart DE0020044, NTNCWS</b>	03/29/18	NA	NA	In Compliance
<b>Fieldstone Golf Course DE0020045, NTNCWS</b>	04/01/18	NA	NA	In Compliance
<b>Allen Harim – Pinnacle Processing Facility DE0000304,* NTNCWS</b>	09/21/18	NA	NA	In Compliance
<b>Kent County Regional Sports Complex DE0020090, NTNCWS</b>	09/25/18	NA	NA	In Compliance

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Office of Drinking Water, 2018.

\* Previously existing new PWSs.

\*\* This PWS was closed in November, 2018 due to a fire.

#### 4. Details of Assistance Provided to New PWSs with Violations

Lighthouse Point Community Center had a monitoring violation for failure to perform lead and copper testing during the January to June 2018 monitoring period. The Capacity Development Team assisted the owners to ensure that they collected samples during the July to December 2018 monitoring period. This PWS is now back in compliance with the Lead Copper Rule (LCR).

#### 5. Plans for FFY 2018

The Capacity Development Program will continue to work closely with the owners and operators of proposed new CWSs and NTNCWSs to ensure that they have a full understanding of their responsibilities as PWSs. Training programs are being developed to ensure that licensed water operators and PWS owners are aware of all aspects of the [State of Delaware Regulations Governing Public Drinking Water Systems](#). The Capacity Development Program will continue to use all available tools to ensure that all water systems are compliant with SDWA requirements.

All new PWSs' technical, managerial, and financial capabilities will be closely monitored for the first three years of operation to ensure that they continue to operate in compliance with all regulations; assistance will be provided accordingly. The Capacity Development Program will continue to maintain a New Public Water Systems Tracking Spreadsheet, which tracks the progress of new PWSs in relation to their technical, managerial, and financial capacity.

ODW continues to maintain the Safe Drinking Water Information System (SDWIS) to ensure proper monitoring of PWSs and timely and accurate compliance determination. Planning and preparation for the implementation of SDWIS Prime is now in place to ensure that Delaware is ready to transition to SDWIS Prime when released by the EPA. During the FFY 18 reporting period, ODW completed the implementation of Lab-to-State, a new portal for labs to submit drinking water test results electronically. The portal will communicate drinking water sample results from external laboratories to SDWIS. Results from the Delaware Public Health Laboratory are already submitted electronically to SDWIS.

ODW has proposed changes to the regulations governing the [Licensing and Registration of Operators of Public Water Supply Systems](#). The proposed changes are currently under review by the Advisory Council for Certification of Public Water System Operators. The proposed changes were submitted to the EPA for comment in November 2017. ODW is waiting for a final response from the EPA.

In 2019, ODW plans to revise the sanitary survey process to improve information-gathering for financial and managerial aspects of Capacity

Development. The ranking criteria currently in use for the baseline assessment will be changed if revisions to the sanitary survey process warrants it.

## 6. New PWS Progress

PWSs that do not possess the needed capacities are not permitted to operate. In FFY 2018, the OE, which conducts new PWS plan review, received and reviewed 234 plans. This includes the following proposed new PWSs:

- Kent County Sports Medicine
- The Vines at Sand Hill - Distribution and Water Treatment Facility
- Ingrams Point - Distribution and Water Treatment Facility
- Captains Way - Distribution and Water Treatment Facility

ODW and OE requested additional documentation for the Capacity Development and Engineering reviews to facilitate the completion of the review process for the proposed new PWSs. In FFY 2018, the OE approved 209 plans of the 234 plans that were reviewed.

ODW can prevent the creation of non-viable PWSs that would have difficulty ensuring the safety of their water. Some PWSs may opt to consolidate into a larger district rather than become a stand-alone PWS before commencing operation, thus forgoing the application process. In most cases, this is preferable since larger PWSs usually have better facilities, larger budgets, and well-trained staff.

## II. Capacity Development Strategy (Existing Systems Program)

Per Section 1420(c) of the SDWA, Delaware implemented a strategy to assist existing PWSs in acquiring and maintaining technical, managerial, and financial capacity. States must document that they are implementing the Capacity Development Strategy (Existing Systems Program) by describing the activities conducted in FFY 2018 (Table 2).

Table 2 lists the number of small (<3,300 persons), medium (3,300-50,000 persons), and large (>50,000 persons) PWSs in Delaware, based on the population served during FFY 2018.

**Table 2. Number of Public Water Systems based on population served, Delaware, Federal Fiscal Year 2018.**

Type of PWS	Small	Medium	Large	Total
Community	178	32	3	213
Nontransient-Noncommunity	91	0	0	91
Transient-Noncommunity	185	0	0	185
<b>Total Number of Public Water Systems</b>				<b>489</b>

Source: Delaware Department of Health and Social Services, Division of Public Health, Safe Drinking Water Information System database, 2018.

The data in Table 2 indicates that the majority of Delaware's PWSs are small, serving 3,300 people or less. Trends since 2013 indicate that the number of PWSs are remaining relatively steady, with a slight increase. The explanation is likely due to PWSs closing or consolidating with other PWSs.

ODW anticipates that more PWSs will consolidate by interconnecting with other PWSs. In many cases, the smaller PWSs are owned and/or operated by a utility and interconnected as part of their growth strategy. These new larger PWSs usually have newer, more modern facilities; a larger budget; and often a larger number of trained staff. Significant infrastructure investment is a trend that is likely to continue in Delaware to avoid the health and regulatory implications of completely abandoning a PWS.

## 1. Changes to the Existing Systems Program

During the reporting period, there were no changes made to the Existing Systems Program.

## 2. Activities Implemented

Delaware's Capacity Development Program conducts the following activities to assist PWSs improve their capacity:

- Sanitary surveys: ODW performed 122 sanitary surveys in FFY 2018. Sanitary survey numbers in FFY 2018 were 136 less than those performed in FFY 2017. This was due to staffing shortages and a reduced number of systems that needed a survey done on the three-year cycle. Continued efforts are being made in FFY 2019 to improve the sanitary survey process.
- Operator certification status: The Capacity Development Program monitors PWSs to ensure that they each employ a properly licensed water operator. The Capacity Development Program is currently assisting 13 PWSs to obtain licensed water operators. This is a 50% reduction in the number of PWSs without licensed water operators than was observed in FFY 2017.
- Technical, financial, and managerial guidance/assistance providers: Assistance is available to all existing PWSs through the Capacity Development Program, Delaware Rural Water Association (DRWA), Delaware Technical Community College (DTCC), and the Southeast Rural Community Assistance Project (SERCAP).
- Training: Training is offered through ODW, DRWA, and DTCC to all PWSs. Much of this training is free of charge. Approximately 1,900 persons received training during FFY 2018. Training conducted by ODW included Consumer Confidence Rule (CCR), SDWA Small

Systems Compliance, and Approved Sampler/Tester (AST). ODW participated in the SERCAP/AWWA training which included LCR training that was held in April 2018. Nine additional participants attended this training session.

- Outreach and education: ODW distributed information about drinking water to 1,447 attendees through its participation in the Delaware State Fair (Harrington, Delaware), the Rural Water Expo (Milford, Delaware), the Rural Water Conference (Harrington, Delaware) and the National Guard Health Fair (New Castle, Delaware). ODW's Trainer/Educator has continued an outreach program at Delaware elementary schools, teaching 1,102 children about safe drinking water during FFY 2018.
- Engineering review: When plans for modifications are submitted to the OE, the Capacity Development Team reviews the compliance history of that PWS. The Capacity Development Program reviewed 161 plans during FFY 2018.
- Violations: The Capacity Development Program together with the PWSS Program assists PWSs that receive violations in addressing the cause, and ensuring that the deficiencies are corrected in order to return to compliance. In FFY 2018, ODW issued violations to 62 PWSs; 29 returned to compliance. The Capacity Development and PWSS Programs are guiding the other 33 PWSs toward compliance. The majority of the outstanding violations were for the Disinfection Byproducts Rule, the LCR, nitrate exceedances, and the Revised Total Coliform Rule (RTCR).
- DWSRF applications: ODW utilizes DWSRF applications to evaluate and improve the technical, managerial, and financial capacity of PWSs. The Capacity Development Program reviewed 11 DWSRF applications in FFY 2018.
- Interagency communication: ODW works closely with DNREC Source Water Assessment staff to assist PWSs with maintaining their capacity to produce safe drinking water.

In May 2018, the Capacity Development team met with key staff from OCCL to start a cohesive relationship between the two agencies as both agencies are actively involved in regulating Child Care/Day Care facilities in Delaware. Staff from OCCL and ODW have since worked together on compliance issues at these facilities. This collaboration resulted in a reduction of violations for facilities operating without a licensed water operator and a reduction of monitoring violations under the LCR.

### 3. Identifying and Prioritizing

The Capacity Development Program continuously prioritizes existing PWSs with the greatest needs to improve capacity using the following criteria:

1. Enforcement Targeting Tool (ETT)
2. Violations and Public Notices issued
3. Consumer complaints
4. PWSs beginning operation within the last three years
5. PWSs applying for a DWSRF loan
6. PWSs submitting plans for alterations
7. Referrals from the PWSS staff.

### 4. Capacity Concerns Identified

- Funds for Training: The ability to recruit and retain quality water operators continues to be an area of concern. This may be due to the costs involved in the process of becoming a licensed water operator in the State of Delaware. To help alleviate these costs and to attract potential water operators, ODW worked with the DWSRF Program to provide funding via the 2% and 15% set-asides. The 2% set-aside goes toward tuition assistance for continuing education for approximately 100 Operators-In-Training and licensed water operators for small PWSs (non-profit). It also provides tuition assistance to approximately 30 new operators for the base-level water operator course; and provides 15 of the 30 new operators with a basic math course. Finally, the 2% set-aside recruits students to enter a drinking water training program, and provides tuition assistance to three students per semester for a one-year period. Unemployed, underemployed, and new PWSs hires are eligible for this program.

Assistance from the 15% set-aside includes funding for the DRWA to provide specialized fluoride training for water operators, management training, and four utility management scholarships to cover technical, financial, and managerial aspects of running a water utility.

- New Regulations: In recent years, ODW adopted several new federal regulations including the Long-Term 2 Enhanced Surface Water Treatment Rule, Stage 2 Disinfectants and Disinfection Byproduct Rule, the Ground Water Rule, and the LCR Short-Term Revisions. ODW also adopted new Operator Certification regulations and revised the *State of Delaware Regulations Governing Public Drinking Water Systems* to include the RTRC and, in FFY 2016, published proposed technical corrections to those regulations.

Delaware is preparing for the promulgation of the LCR Long-Term Revisions and will continue to implement all existing regulations. Additionally, in FFY 2019, Delaware expects to promulgate proposed revisions to the regulations

governing the *Licensing and Registration of Operators of Public Water Supply Systems*. Delaware is currently in the process of revising the *State of Delaware Regulations Governing Public Drinking Water Systems* to facilitate obtaining primacy for rules for which Delaware did not have primacy, and to clarify definitions in other areas of the regulations to assist in compliance and enforcement.

To assist PWSs in understanding and transitioning to new changes in the regulations, ODW is developing appropriate training programs to aid PWSs in implementing these new rules.

- **PWS Classification Changes**: New transient non-community water systems (TNCWS) are not regulated under the Capacity Development authority. However, they are sometimes later sold or leased to another tenant who may use the facility for a daycare or other use that will qualify it as a NTNCWS facility. Owners changing from TNCWS to NTNCWS are surprised to learn that NTNCWS are regulated. . Therefore, new TNCWSs undergo the same Capacity Development review process as NTNCWSs and CWSs.
- **PWS Training**: Municipal CWSs and CWSs with a population of over 1,000 residents are required to monitor their own water quality. Special attention must be paid to sampling conducted by these PWSs to ensure proper sampling techniques and compliance with monitoring schedules. ODW ensures proper sampling techniques by requiring all drinking water samplers who conduct compliance monitoring, and who are not licensed water operators, to complete the AST course.

## **5. Measures of Improvements in PWSs**

All of Delaware's PWSs were given a baseline assessment in 2002 to determine technical, managerial, and financial capacity. The rating system ranked PWSs on a numeric scale from one (those with the greatest need to improve) and four (those with the best capacity). The Capacity Development Program reassesses one third of PWSs annually to measure the program's effectiveness.

During FFY 2018, ODW continued to reduce the capacity issues in Delaware's PWSs. The number of PWSs with major capacity issues remains very low. The revised method of ranking used since 2015 has produced more consistency in the ranking compared to previous years.

In preparation for this report, the ODW Capacity Development Program compared 2015 data to 2018 data. The comparison clearly indicates an overall capacity performance improvement in Delaware's PWSs (Table 3). In FFY 2018, three PWSs with ETT scores 11 or greater were listed as having poor capacity, a slight increase compared to the one PWS with poor capacity in FFY 2015. ODW provided technical assistance to PWSs with poor capacity. At the end of FFY 2018, only one system remained on this list.

**Table 3. Ranking based on Capacity of PWSs, Delaware, Federal Fiscal Year 2002-2018.**

<b>Ranking</b>	<b>Poor Capacity (1)</b>	<b>Moderate Capacity (2)</b>	<b>Good Capacity (3)</b>	<b>Excellent Capacity (4)</b>	<b>Total</b>
<b>Initial</b>	8	69	177	282	536
<b>2003-2005</b>	4	84	145	290	523
<b>2006-2008</b>	4	35	144	321	504
<b>2009</b>	6	30	121	328	485
<b>2010 - 2012</b>	13	47	201	231	492
<b>2013*</b>	5	14	105	40	165
<b>2014*</b>	1	52	66	58	177
<b>2015*</b>	1	32	67	63	163
<b>2016*</b>	1	29	75	48	153
<b>2017*</b>	1	35	85	53	174
<b>2018*</b>	3	25	77	52	157

\*1/3 of PWSs reviewed. A revised method of system ranking was employed in an effort to improve ranking precision and to help ensure such a method can more easily and consistently be employed in future years.

Source: Delaware Department of Health and Social Services, Division of Public Health, Safe Drinking Water Information System database, 2018.

**Success Story 1:**

In February 2018, EPA and DNREC tested water from the wells that were being used as the primary source of drinking water in the Town of Blades. Analysis of the water indicated that it was contaminated with high levels of Perfluorooctanesulfonic acid. ODW staff worked with DNREC, the Delaware Emergency Management Agency, the Delaware Water/Wastewater Response Network and the Delaware National Guard to supply alternate water sources until a carbon filtration unit was installed at the town treatment plant. ODW played a key role in ensuring that the town had the capacity to provide clean drinking water to its residents.

**Success Story 2:**

In March, 2018, the CWS at Hilltop Trailer Park was identified as a PWS with poor capacity. This PWS has had long-term monitoring violations for not testing for lead and copper and operating a PWS without a licensed water operator. ODW's Capacity Development team implemented increased communication and

enforcement protocols to return Hilltop Trailer Park to a path of compliance. This PWS performed its first round of lead and copper testing in September 2018 and has since hired a licensed water operator.

### **Success Story 3:**

In May/June of 2018, the Capacity Development Program took a targeted approach to identify and assist CWSs and NTNCWSs that were in violation due to their systems not being maintained by a licensed water operator. These PWSs were provided managerial assistance to hire operators. Certain NTNCWSs were guided through the Limited License process to ensure that their staff gained a Limited License to maintain their systems. In FFY 2017, 26 systems operated in violation because they were without licensed water operators. In FFY 2018, 50% fewer systems (13) operated without a Licensed Water Operator than in FFY2017.

## **6. Factors that Encourage the Capacity Development Strategy**

- The availability of DWSRF loans: This allows PWSs to replace aging infrastructure and add needed treatment or other projects to enhance capacity.
- Certificate of Public Convenience and Necessity (CPCN): CPCNs allow large PWSs to be formed with ample capacity to provide safe drinking water to its consumers. A PWS must demonstrate its technical, managerial, and financial capabilities prior to receiving a CPCN.
- Authority to Prevent: DHSS has the authority to prevent the construction of new PWSs that do not have the ability to provide safe drinking water over the long term. The benefits of this provision will accumulate in the coming years by assuring that every new CWS and NTNCWS has technical, managerial, and financial capacity.
- The services of DRWA and DTCC: These services provided to PWSs are a substantial enhancement to their capacity to provide safe drinking water. The DRWA circuit rider program provides a valuable service in the field, while the DTCC's operator certification program and training seminars provide training in the classroom.
- Approved Sampler/Tester: This program requires that individuals who are conducting compliance monitoring or daily testing and are not licensed water operators, to be trained and certified as sampler/testers. This requirement ensures that samples will be taken correctly and improves the reliability of sample results.
- ODW collaboration: The close working relationship between the Capacity Development Program, the PWSS Program, and the OE

fosters creative solutions for resolving PWS capacity problems. ODW is currently working with other departments to ensure public health and safety. ODW continues to work with the Delaware Attorney General's Environmental Justice Office (EJO) to address complaints at small manufactured/mobile home communities. ODW continues to participate in EJO outreach to these communities. The EJO office held three public meetings, one in each county, to discuss tenant rights. ODW participated in the meetings by informing the public about drinking water regulations and how to access sample results via Drinking Water Watch (<https://drinkingwater.dhss.delaware.gov/>), Delaware's website for public access to drinking water monitoring results.

## 7. Factors That Discourage the Capacity Development Strategy

- Incidental PWSs: Frequently, supplying drinking water is not the principal purpose of a business. The management personnel of such businesses may have even less knowledge of water systems and, therefore, may not provide adequate technical, financial, and managerial support to produce safe drinking water.
- Asset management: Officials of small municipalities are often subject to the political pressures of being re-elected and may not raise water rates as needed. This results in some small CWSs without funds to maintain their water system.
- Consolidation: Consolidation of PWSs often improves overall capacities. However, many PWSs do not consolidate due to the cost of interconnecting or fear of losing control of revenue.
- Staff turn-over: Over the last several years, the Capacity Development Program has had a high turnover of employees, which can cause delays in the normal workload. During the reporting period, the ODW Capacity Development Program was fully staffed. ODW continues to develop strategies to reduce staff turnover.

## 8. Electronic Tracking Tool

In 2011, EPA generated a formula for calculating PWSs that are repeat violators. EPA used the new Enforcement Tracking Tool (ETT) to track significant non-compliers. This list contains all PWSs that have a score of 11 or greater. At the end of FFY 2018, seven Delaware PWSs (six CWS and one NTNCWS) scored higher than 10. ODW contacted each PWS to provide assistance to resolve their issues. Two of the seven PWSs are on the path to compliance. The Capacity Development Program and the PWSS program will continue to offer the owners of the remaining five PWSs assistance until their issues are resolved.

## 9. Projected Activities

- Public Notice Assistance: The Capacity Development Program will continue to pay special attention to PWSs that issued public notices. Assistance is often needed to identify potential sources of contamination, determine the best treatment practices, and keep the PWSs in compliance.
- Monitoring and Reporting Violation Assistance: The Capacity Development Program will continue its increased focus to assist small PWSs that have monitoring and reporting violations by increasing their understanding of the regulations and their responsibilities. Monitoring and reporting violations are typically avoidable since they often result from inaction on the PWS's part, rather than due to contamination. As such, they are an indicator of managerial capacity. With this assistance, PWSs will better understand what is required of them and how to avoid violations and/or return to compliance. The Capacity Development Program will also utilize its partnership with DRWA to provide assistance. Assistance from ODW will include notifying PWSs when they are required to sample, and what and how they are required to report to their consumers and to ODW.
- Cross Connection Control: ODW is currently reviewing Cross Connection Control from a regulatory point of view to determine if changes should be made to include this in the *State of Delaware Regulations Governing Public Drinking Water Systems*. Any changes to the regulations as a result of this review will be made in the upcoming regulation revision.
- Data Management: Capacity Development implemented electronic LCR monitoring schedules to aid in managing and tracking the complex Data Management rule. ODW entered all contaminant schedules and will continue to improve the SDWIS data quality assurance program. This will improve tracking and monitoring PWSs and SDWIS data quality.
- Training: The Capacity Development Program is working to create and deliver specialized training. This aspect of the program was successful in the past with the following trainings: Managerial Tips for Small Water Systems, Child Care Center Operator Certification Training, and Managerial and Financial Training for Municipal Decision Makers. Additionally, the Capacity Development Program worked with SERCAP to provide training on regulations and prepare for climate change. ODW and other technical assistance providers will continue to provide training on topics including CCR, AST, RTCR, LCR, and other regulatory issues.

Currently, the Capacity Development Program is developing two new training courses. One training will educate staff from the Child Care Licensing team about the basics of the SDWA. The second training will educate licensed water operators about parts of the regulations that are often overlooked or misunderstood.

- **ODW Email Blast:** To improve the ODW’s communication with PWSs, the Capacity Development Program started an email blast in FFY 2018. This replaces the tri-annual newsletter that was previously produced and distributed by ODW. The email blasts inform PWSs about training opportunities and important regulatory and compliance issues. The Trainer/Educator produces the emails and distributes them monthly to certified water operators and administrative contacts. ODW has received positive feedback from the operators on this email publication.

## 10. Program Progress

The Capacity Development Program monitors several measures to assess its progress in ensuring that PWSs maintain their technical, financial, and managerial capacities. Capacity Development Program services were available to all PWSs in 2018. Compliance with operator certification remained high between FFY14 and FFY18. The number of PWSs that were issued public notices fluctuates from year to year, but many PWSs return to compliance after receiving outreach and technical assistance (Table 4).

**Table 4: Public Water Systems and their Technical, Managerial, and Financial Capacities, Delaware, Federal Financial Year 2014-2018.**

Measure	FFY14	FFY15	FFY16	FFY17	FFY18
Percentage of CWSs with Licensed Operators	96	94	95	95	98
Percentage of NTNCWSs with Licensed Operators	86	75	82	81	89
Number of Lead and Copper Rule violations	8	33	10	12	12
Number of PWSs that issued a public notice	110	102	58	52	62
Number of PWSs that returned to compliance	62	78	37	26	29
Number of people who attended training (operators and public works employees)	1,158	1,787	1,166	1,499	1,909
Percentage of PWSs that participated in the Capacity Development Program*	46	44	40	41	41

\*This number was calculated using the following formula: The number of PWSs reviewed by the Capacity Development Program (1/3 of all PWSs) plus half of the PWSs trained by ODW, divided by the total number of PWSs.

Sources: Delaware Department of Health and Social Services, Division of Public Health, Safe Drinking Water Information System database and DPH, 2018.

### **III. Additional Information**

#### **1. Report to the Governor**

The *State of Delaware Capacity Development Program Report to the Governor, September 2017*, submitted to Governor John C. Carney, shares the efficacy, strategy, and progress made toward improving the technical, managerial, and financial capacity of PWSs. That report is submitted every three years. The next report is due October 1, 2020.

#### **2. Procedures for PWSs With an ETT Score of 11 or Greater**

PWSs that are not in compliance with National Primary Drinking Water Regulations and have an ETT score of 11 or greater are targeted for capacity improvement. PWSs having difficulty returning to compliance are referred to technical assistance providers (e.g., DRWA), are issued administrative orders, are subject to administrative penalties, and are referred the EPA for federal enforcement actions.

#### **3. Procedures for Evaluating Capacity for DWSRF Loan Applicants**

DWSRF loan applicants must provide information that addresses capacity as part of their loan application. A thorough review of the PWS is conducted to identify the technical, managerial, and financial capabilities and needs. Meetings and other communications are conducted with the applicant as necessary to clarify application information. Additionally, the DWSRF Program contracted with a third party consultant to provide a supplemental Capacity Development review and tracking for DWSRF loan applicants. Loan applicant PWSs who do not have adequate technical, managerial, or financial capacity will not receive a loan approval recommendation from the Capacity Development Program. Applicants are informed of the results of their Capacity Development review and are offered assistance in areas of deficiency, including referral to DRWA, which offers capacity assistance with services including, but not limited to: water audits; updating or creating emergency plans; updating or creating operation and maintenance manuals; operator training; budgeting; and asset management.

#### **4. Changes in Staffing at ODW**

In May 2018, an Environmental Health Specialist II position that managed the Southeast territory in the PWSS program was vacated. ODW is currently in the hiring process to fill this position.

In May 2018, the Environmental Control Technician positions that worked at ODW's Edgehill office in Dover were transferred to the Delaware Public Health Laboratory in Smyrna.