

State of Delaware Capacity Development Program Implementation Report and Annual Review 2017



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

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Executive Summary

The 2017 State of Delaware Annual Capacity Development Program Implementation Report 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 percent 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 Office of Drinking Water monitors 487 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 financial year. The reports are available to the public through the Division of Public Health (DPH), Office of Drinking Water (ODW) website: <http://www.dhss.delaware.gov/dhss/dph/hsp/annrepdw.html>.

Table of Contents

Section	Page Number
I. Capacity Development Authority (New Systems Program)	5
1. Legal Authority	5
2. Control Points for New Public Water Systems	5
3. New Compliance Status: October 1, 2014 through September 30, 2017	7
4. Details of Assistance Provided to New Public Water Systems with Violations	7
5. Plans for Federal Fiscal Year 2017	7
6. New Public Water System Progress	9
II. Capacity Development Strategy (Existing Systems Program)	9
1. Changes to the Existing Systems Program	10
2. Activities Implemented	10
3. Identifying and Prioritizing	12
4. Capacity Concerns Identified	12
5. Measures of Improvements in Public Water Systems	13
6. Factors That Encourage the Capacity Development Strategy	15
7. Factors That Discourage the Capacity Development Strategy	16
8. Electronic Tracking Tool	16
9. Projected Activities	17
10. Program Progress	18
III. Additional Information	19
1. Report to the Governor	19
2. Procedures for Public Water Systems With 11 or Greater Enforcement Targeting Score	19
3. Procedures for Evaluating Capacity for Drinking Water State Revolving Fund Loan Applicants	19
4. Changes in Staffing	19

**CAPACITY DEVELOPMENT PROGRAM
IMPLEMENTATION REPORT AND ANNUAL REVIEW
Federal Fiscal Year 2017 (October 1, 2016 – September 30, 2017)**

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/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 in the reporting year.

2. Control Points for New PWSs

Delaware uses several control points (listed below) to initiate contact with a potential PWS to ensure their capacity. These control points have not changed in the reporting year.

- 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 (HSP); and the Department of Services for Children, Youth and Their Families, Office of Child Care Licensing contacts the Capacity Development Program for notification of new child care facilities that may become PWSs.
- Planning and Land Use Service (PLUS) 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. The Office of Engineering in turn 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 the Office of Food Protection include a PWS information form to be completed by the applicant for ODW to determine if the facility will be a PWS and the likely PWS classification.
- Certificate of Public Convenience and Necessity (CPCN): CPCNs are issued by the 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, an in-person meeting with the prospective PWS owner is conducted. 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, 2014 through September 30, 2017

New PWSs are monitored for compliance for a period of three years after they are activated. Table 1, on page 9, lists the new PWSs that were monitored by the Capacity Development Program during the reporting period.

4. Details of Assistance Provided to New PWSs with Violations

Lotus Blossom Learning Center had a Monitoring and Reporting Violation under the Lead and Cooper Rule (LCR) in FFY 2016 and FFY 2017 for failing to submit sample results in the specified monitoring periods. Lotus Blossom Learning Center does not have a licensed water operator. The Capacity Development Program consulted with the PWSS Program regarding the lack of a licensed water operator at this PWS. Enforcement actions are being taken to facilitate compliance with the requirement to have a licensed water operator. The Capacity Development Program is providing assistance to the owners of this PWS, including referral to Delaware Technical and Community College's (DTCC) Environmental Training Center for the Limited License Water Operator Course to avoid further enforcement actions and to return this site to compliance.

There were no other violations for PWSs less than three years old in FFY 2017.

5. Plans for FFY 2017

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. The Capacity Development Program will continue to use all the available tools to ensure that all water systems are compliant with SDWA requirements.

All new PWSs' ability to maintain 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 vis-à-vis 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 successfully transition to SDWIS Prime within the timeframes set by the EPA.

-continued on page 9

Table 1: Compliance Status of new PWSs, Delaware, October 1, 2014 – September 30, 2017

Name Public Water System Identification Number Type of Public Water System	Date Activated	Compliance Status Federal Fiscal Year 2015	Compliance Status Federal Fiscal Year 2016	Compliance Status Federal Fiscal Year 2017
FY2015				
Lotus Blossom Learning Center¹ DE0020067 NTNCPWS²	10/01/2014	In Compliance	Lead and Copper Rule Violation	Lead and Copper Rule Violation No Water Operator
Woodbridge High School DE0020068 NTNCPWS²	10/23/2014	In Compliance	In Compliance	In Compliance
Mid-Atlantic Family Practice DE0020073 NTNCPWS²	12/16/2014	In Compliance	In Compliance	In Compliance
Milton Cheer, Inc. DE0020076 NTNCPWS²	05/21/2015	Total Coliform Rule Returned to compliance	In Compliance	In Compliance
FY2016				
Byler's Store (West Dover)¹ DE0020074 NTNCPWS²	10/30/2015	NA	In Compliance	In Compliance
Lighthouse Point and Community Center¹ DE00A0781 NTNCWS²	09/21/2016	NA	In Compliance	In Compliance
Willey Farms¹ DE0020086 NTNCPWS²	09/21/2016	NA	In Compliance	In Compliance
FY2017				
Ingram Village (AWC) DE0020052 Community Water System	12/20/2016	NA	NA	In Compliance
Ponds of Odessa (AWC) DE0020088 Community Water System	12/20/2016	NA	NA	In Compliance
Lullaby Learning Center DE0020092 NTNCPWS²	09/28/2017	NA	NA	In Compliance

Source: Division of Public Health, Delaware Office of Drinking Water, 2017.

¹ Previously existing new PWSs.

² Non-Transient Non-Community Public Water System

ODW continues to install Lab-to-State, a new portal for labs to submit drinking water test results electronically, which will communicate drinking water sample results from laboratories to the SDWIS. The software installation is currently in the testing phase and nearing completion. It is expected to begin operation by January 2018.

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 EPA for comment on November, 2017.

ODW plans to revise the sanitary survey process to improve information gathering for financial and managerial aspects of Capacity Development. This will lead to a revision of the ranking criteria currently in use for the baseline assessment.

6. New PWS Progress

PWSs that do not possess the needed capacities are not permitted to operate. In FFY 2017, the OE, which conducts new PWS plan review, received and reviewed 220 plans. This includes two applications that were reviewed for a proposed new PWS (Captains Way Distribution and Water Treatment Facility). ODW requested additional documentation for the Capacity Development review to facilitate the review process. In FFY 2017, the OE approved 198 plans.

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 2017 (Table 2).

Table 2 lists the number of small (<3,300), medium (3,300-50,000), and large (>50,000) PWSs in Delaware, based on the population served during FFY 2017.

Table 2: PWSs based on population served in Delaware, Federal Fiscal Year 2017.

Type	Small	Medium	Large	Total
Community	180	31	3	214
Nontransient-Noncommunity	86	0	0	86
Transient-Noncommunity	186	1	0	187
Total Number of Public Water Systems:				487

Source: SDWIS database.

The data in Table 2 indicates that the majority of Delaware’s PWSs are small, serving 3,300 people or less. Trends over the last five years 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 PWS. In many cases, the smaller PWSs are owned/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 FFY 2017, ODW experienced changes to staffing in the Capacity Development Program. The former Capacity Development Program Manager was appointed as the new Program Administrator for ODW. This created a vacancy for the Capacity Development Program Manager role that was subsequently filled towards the latter part of FFY 2017. The revisions introduced during FFY 2016 were continued in FFY 2017.

2. Activities Implemented

Delaware’s Capacity Development Program utilizes the following activities to assist existing PWSs improve their capacity:

- Sanitary surveys: ODW performed 258 sanitary surveys in FFY 2017. In FFY 2018, ODW plans to incorporate into the sanitary surveys the collection of more information related to Capacity Development, which will allow the Capacity Development Program to revise the system used to rank the PWSs. The sanitary survey process is currently under review.
- Operator certification status: The Capacity Development Program monitors PWSs to ensure that they each employ a properly licensed

operator. The Capacity Development Program is working with 26 PWSs obtain water operators so compliance is met.

- Technical, financial, and managerial guidance/assistance providers: Assistance is available to all existing PWSs through the Capacity Development Program, Delaware Rural Water Association (DRWA), 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 1,500 attendees were trained during FFY 2017. Training conducted by ODW included Consumer Confidence Rule (CCR), SDWA Compliance and Approved Sampler/Tester (AST).
- Outreach and education: ODW distributed information about drinking water to 1,022 attendees through its participation in the Delaware State Fair (Harrington, DE), the Rural Water Expo (Milford, DE), the Rural Water Conference (Harrington, DE), the Emerging Contaminants Symposium (Dover, DE), and the Rural Water SDWA Compliance Class (Milford, DE). ODW's Trainer/Educator has continued outreach at Delaware elementary schools, teaching 763 children about safe drinking water during FFY 2017.
- 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 has reviewed and commented on 154 plans during FFY 2017.
- Violations: The Capacity Development Program works with PWSs that receive violations to address the cause and ensure that the deficiencies are corrected and the PWSs return to compliance. ODW issued violations to 52 PWSs; 26 returned to compliance. The Capacity Development Program is guiding the other 26 PWSs toward compliance. The majority of the outstanding violations were for the CCR, the TCR/Revised Total Coliform Rule (RTCR), nitrate exceedances, and the LCR.
- DWSRF applications: ODW utilizes DWSRF applications to evaluate and improve the technical, managerial, and financial capacity of PWSs. The Capacity Development Program reviewed five DWSRF applications in FFY 2017.
- Interagency communication: ODW works closely with DNREC and their Source Water Assessment staff to assist PWSs maintain the capacity to produce safe drinking water.

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 Public Water System Supervision (PWSS) staff.

4. Capacity Concerns Identified

- Funds for Training: The ability to recruit and retain quality water operators has been identified as an area of concern by ODW. This may be due to the costs involved in the process of gaining the required education to become a licensed water operator in the State of Delaware. To help alleviate these costs and to attract potential water operators, ODW has worked with the DWSRF Program to provide funding via the 2 percent and 15 percent set-asides. The 2 percent set-aside goes toward tuition assistance for continuing education for approximately 100 Operators-In-Training and licensed water operators for small public water systems (non-profit). It also provides tuition assistance to approximately 30 new operators for the base-level water operators course; and provides 15 of the 30 new operators with a basic math course. Finally, the 2 percent 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 percent set-aside includes funding 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 FFY 2013, 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. In FFY 2014, ODW adopted new Operator Certification regulations. In FFY 2015, ODW revised the 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 2018, Delaware expects to promulgate proposed

revisions to the regulations governing the Licensing and Registration of Operators of Public Water Supply Systems.

ODW has identified that PWSs struggle with understanding and transitioning to new changes in Delaware regulations. To help alleviate these issues, ODW plans to train and assist PWSs to make the transition to these new rules. The ODW trainer/educator will develop appropriate training programs for PWSs to aid 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 will use the facility for a daycare or other use that will qualify it as a NTNCWS facility. Owners are surprised to learn of the increased regulation when changing from TNCWS to NTNCWS. 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 continues to ensure proper sampling techniques by implementing the AST course required to be taken by all drinking water samplers who conduct compliance monitoring and are not licensed water operators.

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). As previously stated, the Capacity Development Program reassesses one third of PWSs annually as a measure of the program's effectiveness.

During FFY 2017, 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 for the last three years produced more consistency in the ranking compared to previous years.

In preparation for the 2014 Annual Implementation Report, the ODW Capacity Development Program reviewed PWSs similar to the ones being reviewed in this current Annual Implementation Report (2017). A review of the 2014 data versus the 2017 data clearly indicates an overall capacity performance improvement in Delaware's PWSs (Table 3).

Table 3: Ranking based on Capacity of PWSs in Delaware, Federal Fiscal Years 2002-2017

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

*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: SDWIS database.

Success Story 1: Forest Park Mobile Home Park

Forest Park Mobile Home Park of Millsboro had a history of nitrate exceedance violations as well as LCR and CCR violations. The Capacity Development Program provided assistance that resulted in the PWS returning to compliance for LCR violations. However, this CWS had unresolved nitrate violations. Staff from ODW, the DWSRF Program, and DRWA met with the owner and discussed options to remediate the issue with nitrate violations. Options included drilling a new well or installing treatment to reduce nitrate levels in the water. Discussions concluded with the owner agreeing to install treatment. Treatment was installed in August, 2017 and the PWS returned to compliance for nitrate levels.

Success Story 2: Tall Pines Resort Community System 1

The Tall Pines Resort Community System 1 of Lewes had a long history of nitrate violations in one of their supply wells. ODW staff worked with the owners to remediate the ongoing nitrate issues. There were two options: to construct a new well and abandon the supply well with the nitrate issues; or to install treatment to reduce nitrate levels from the supply well of concern. Discussions concluded with the owner agreeing to construct a new well and abandon the

supply well with the nitrate issues. Since the new well was constructed on October 11, 2017, the PWS has not had nitrate violations.

Success Story 3: Holiday Pines

Holiday Pines is a community in Millsboro that had a history of various types of violations, including LCR, CCR, TCR, *E. coli*, and Nitrates. The ODW participated in a meeting between the U.S. Department of Agriculture, Southeast Rural Community Assistance Project (SERCAP), and Tidewater Utilities, Inc. (TUI). The results of the meeting set in motion events that will result Holiday Pines consolidating with TUI. The Capacity Development Program is working with the DWSRF Program and the Water Infrastructure Advisory Council (WIAC) to provide a DWSRF loan to TUI for the consolidation. The loan is currently under Capacity Development review and will be reviewed by WIAC. With WIAC's approval, the PWS consolidation is expected to occur in FFY 2018.

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 (AST):** 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 requirements helps to ensure that samples will be taken correctly, which 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 mobile home parks. ODW continues to participate in the EJO outreach to manufactured home 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 for the production of safe drinking water.
- Asset management: Officials of small municipalities are often subject to the political pressures of being reelected and may not raise water rates as needed. This results in some small CWSs not having the financial capacities 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. We continue to develop strategies to reduce 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, with PWSs that have a score greater than 10 being significant non-compliers. At the end of FFY 2017, only four PWSs scored higher than 10. ODW contacted them to resolve their issues. Three of the four PWSs returned to compliance, and one is on the path to compliance. The Capacity Development Program will continue to contact the owners to offer 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. The Capacity Development Program will focus on ensuring that small PWSs have licensed operators.
- Monitoring and Reporting Violation Assistance: The Capacity Development Program will continue its increased focus to assist small PWSs. ODW will work with these PWSs to increase their understanding of monitoring and reporting violations. 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: This is a popular program that is currently self-funded with fees. The capacity development had funded a Cross Connection Control training course for drinking water operators to identify cross connections, determine the degree of hazards associated with a cross connection, and develop and administer a cross connection control program to protect PWSs and the public health of water consumers.
- Data Management: Capacity Development implemented electronic LCR monitoring schedules to aid in managing and tracking of 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 will work to create and deliver specialized training. This aspect of the program was successful in the past with the Managerial Tips for Small Water Systems, Child Care Center Operator Certification Training, and Managerial and Financial Training for Municipal Decision Makers. 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, RTRC, LCR, and other regulatory issues.

- **“Tap Talk” Newsletter:** The Capacity Development Program generates the newsletter “Tap Talk” to inform PWSs about training opportunities and important regulatory and compliance issues. The Trainer/Educator produces three “Tap Talk” newsletters annually and electronically distributes them to certified water operators. ODW receives positive feedback from the operators on this publication, which is also available on the DPH website.

10. Program Progress

The Capacity Development Program monitors several measures to assess its progress in ensuring that PWSs maintain their technical, financial, and managerial (TMF) capacities (Table 4). Capacity Development Program services were available to all PWSs in 2017. Table 4 shows changes in compliance between FFY 13 and FFY 17. Compliance with operator certification remains high. The number of PWSs issued public notices fluctuate from year to year, but many PWSs return to compliance after receiving outreach and technical assistance.

Table 4: Public Water Systems and their Technical, Managerial & Financial Capacities, Federal Financial Year 2013-2017.

Measure	FFY13	FFY14	FFY15	FFY16	FFY17
Percentage of Community Water Systems with Licensed Operators	93	96	94	95	95
Percentage of Non-Transient Non-Community Public Water Systems with Licensed Operators	91	86	75	82	81
Number of Lead and Copper Rule violations	33	8	33	10	12
Number of Public Water Systems that went on public notice	139	110	102	58	52
Number of Public Water Systems returned to compliance	100	62	78	37	26
Number of people who attended training (operators and public works employees)	1,413	1,158	1,787	1,166	1,499
Percentage of Public Water Systems that participated in the Capacity Development Program*	69	46	44	40	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: SDWIS database & Division of Public Health, Delaware Office of Drinking Water, 2017.

III. Additional Information

1. Report to the Governor

The Report to the Governor on the efficacy, strategy, and progress made toward improving the technical, managerial, and financial capacity of PWSs in Delaware was submitted to Delaware's Governor in September 2017. This report is submitted every three years. The next report is due October 1, 2020.

2. Procedures for PWSs With 11 or Greater ETT Score

PWSs that are not in compliance with National Primary Drinking Water Regulations and have an ETT score greater than 10 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

During FFY 2017, ODW filled the Environmental Health Specialist II (EHS II) position previously vacated at the end of FFY 2016. This position's primary responsibility is to assist the Capacity Development Program; a secondary responsibility is to manage the LCR Program. The position was filled in March 2017.

During FFY 2017, ODW filled the Capacity Development Program Manager position previously vacated in February 2017. This position's primary responsibility is to manage Delaware's Capacity Development Program. The position was filled in July 2017.