State of Delaware
Capacity Development Program
Report to the Governor

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

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EXECUTIVE SUMMARY

The 2026 Capacity Development Program Report to the Governor covers the time from July 1, 2023, to June 30, 2026. It explains Delaware's plan to protect public health as required by the federal Safe Drinking Water Act (SDWA). The strategy assists public water systems (PWSs) in acquiring and maintaining the technical, managerial, and financial capacity needed to operate. If a plan is not in place, 20% of the federal Drinking Water State Revolving Fund (DWSRF) grant will be withheld from the state's allotment.

Since Delaware began implementing the 1996 Amendments to the SDWA, Delaware has consistently improved and evolved into the program it is today. Due to population growth and an increase in the number of residential communities in Delaware, new systems are continually being reviewed and added to the list of PWSs that are provided with regulatory oversight. The Delaware Department of Health and Social Services (DHSS), Division of Public Health (DPH), Office of Drinking Water (ODW) regularly evaluates and monitors the technical, managerial, and financial capacities of PWSs. Currently, ODW monitors 461 PWSs.

The ODW serves a vital function by delivering technical assistance and educational resources, which are demonstrated through more than 560 site visits conducted during the reporting period. These visits encompassed sanitary surveys, capacity development inspections, and Level 2 assessments of PWSs. Furthermore, the Delaware Rural Water Association significantly enhances this effort by contributing hundreds of site visits each year, further strengthening hands-on support for our small water system communities. Ongoing training is not just beneficial; water operators, owners, and designated personnel must stay current with ever-evolving regulations and cutting-edge technologies. Through a combination of onsite assessments and comprehensive classroom training sessions, water operators gain invaluable knowledge and skills.

Classroom training complements this effort, enriching water operators' understanding of public water system operation and maintenance through diverse training topics. Thanks to the collaboration between ODW and Delaware Technical Community College, during this reporting period, 52 of the 72 operators enrolled in the rigorous training program completed it. This achievement not only equips them with essential skills but also reflects a strong commitment to workforce development. By investing in practical training opportunities, we empower our water professionals, ensuring they are ready to meet the challenges of the industry effectively.

The SDWA requires that a report be made to the Governor on the efficacy of the strategy and the progress made toward improving the technical, managerial, and financial capacity of PWSs in the state, no later than two years after the date on which a state adopts a Capacity Development Strategy and every three years thereafter. Since 2002, ODW has prepared eight reports for the Governor's Office before this report. The 2026 Capacity Development Program report is the first report presented to Governor Matt Meyer, the 76th Governor of the

state of Delaware. The reporting period for this report is July 1, 2023, to June 30, 2026. A copy of this report is submitted to the United States Environmental Protection Agency (EPA).

The reports are available to the public through the Office of Drinking Water website: Office of Drinking Water – DHSS

THE PROGRAM

The Delaware Department of Health and Social Services, Division of Public Health (DPH) Capacity Development Program primarily employs a proactive, non-regulatory strategy. In developing the strategy, methods were first considered to identify and prioritize public water systems (PWSs) in need of improving technical, managerial, or financial capacity. To measure improvements in capacity, the DPH Office of Drinking Water (ODW) established a baseline in 2000 by reviewing the technical, managerial, and financial capacity of Delaware's 521 PWSs in existence at the time. Each water system was categorized according to its compliance level:

- **Level 1: Enforcement Targeting Tool Violators**
  The Enforcement Targeting Tool (ETT) is a calculative method used to determine a public water system's enforcement priority point. It is used to identify and prioritize systems for enforcement response. Any system with a score of 11 or greater must be addressed within six months. The Capacity Development Program will work with these systems to determine if they can be returned to compliance without formal state action.

- **Level 2: Systems with Health-Related Compliance Problems**
  These systems are currently in compliance with health-related regulations but have a history of compliance problems in the last three years. ODW conducts reviews for the following violations: Systems exceeding Lead or Copper action levels, Revised Total Coliform Rule, and Phase II-V (chemical contaminants). If problems are not addressed, the system's ranking could be moved to Level 1.

- **Level 3: Systems with Non-Health-Related Compliance Problems**
  Many water systems face significant challenges, including the absence of a certified water operator or the failure to submit a Consumer Confidence Report (CCR). Inspections have revealed various sanitary defects, and numerous non-compliance complaints have been made regarding service quality. Additional concerns include aging infrastructure, inadequate maintenance, and financial difficulties. Furthermore, some systems have recently been identified as having been operating without undergoing the required Capacity Development Program review.
- **Level 4: Systems Exhibiting Full Capacity**
  These systems are recognized for their impressive track record in regulatory compliance and their effective management of day-to-day operations. They use

proactive measures to identify potential issues early, ensuring problems are addressed before they escalate to serious violations. This approach not only highlights their commitment to adhering to guidelines and regulations but also reinforces their dedication to maintaining exceptional standards of water quality and customer service. By implementing continuous monitoring and improvement practices, these systems strive to deliver reliable and safe water services to the communities they serve.

ODW currently oversees 461 Public Water Systems (PWS) and provides support to those facing challenges in achieving regulatory compliance. Using feedback and national trends, ODW has identified key areas where systems need support, paving the way for enhanced effectiveness and growth. ODW also contracts with the Delaware Technical Community College (DTCC) Environmental Training Center and the Southeast Rural Community Assistance Project (SERCAP), which provides technical assistance to PWSs in Delaware. In addition, ODW refers some PWSs to other sections within DHSS, the Department of Natural Resources and Environmental Control (DNREC), and the Public Service Commission. This is to ensure that the system receives assistance tailored to its individual needs.

ODW and its contractors can provide the following types of assistance to PWSs:

- Emergency response plans, including water system security
- Information about Delaware drinking water regulations
- In-depth water system evaluations with recommendations
- Operation and maintenance manuals
- Water Treatment Technique evaluations
- How to comply with the requirements of the Lead and Copper Rule (LCR)
- Operational policies, job descriptions, and organizational charts
- Calculate and control water loss
- Water conservation practices
- Asset management plans
- Rate setting, record keeping, and cost recovery
- Long-term Capital Improvement Plans
- Completing a Drinking Water State Revolving Fund (DWSRF) loan application
- Source Water Assessment or Wellhead Protection Plans
- Obtaining or maintaining a Drinking Water Operators License
- Operator certification requirements
- Promote consensus between operators, elected officials, and customers of municipal water systems.

Currently, PWSs undergo an annual ranking process to assess their status and performance. This ranking serves as a valuable indicator for the Capacity Development Program, helping to pinpoint the specific assistance needs of each water system. Additionally, it functions as an evaluation tool to measure the effectiveness of the Capacity Development Program,

highlighting compliance trends and identifying key focus areas for future support and improvement.

All PWSs can participate in the Capacity Development Program. Most accept ODW's offers for assistance and show improvement in compliance and, consequently, in protecting public health. The number of sanitary survey defects was considerably reduced, and many more systems developed written emergency and maintenance plans. Much of this is due to regularly offered water operator training by contractors DTCC, SERCAP, and ODW Water Operator Training, which greatly enhances their knowledge.

DPH requires all Delaware-licensed drinking water operators to obtain 20 hours of continuing education every two years. ODW offers training on regulatory topics such as Consumer Confidence Rule, LCR, sampling and testing for physical, biological, chemical, and radiological contaminants; Cross Connection Control, Emerging Contaminants, PFAS Training and Sampling Procedures, Asset management, Revised Total Coliform Rule, regulations that pertain to schools and childcare facilities, Ground Water Rule, Drinking Water Watch education for water operators and administrative personnel, and the Approved Sampler/Tester (AST) training.

TYPICAL CAPACITY BUILDING ACTIVITIES

The Capacity Development Program plays a crucial role in promoting access to safe drinking water throughout the state of Delaware. It serves as a vital link among various stakeholders, including the customers who rely on the water supply; the water systems responsible for delivering clean water; and ODW, particularly its enforcement section. This program aims to enhance the capabilities of public water systems, ensuring they can meet regulatory standards and effectively manage water quality. By facilitating communication and collaboration between customers and water system operators, as well as advocating for compliance with the Public Water System Supervision Program, the Capacity Development Program strives to foster an environment in which safe drinking water is consistently available to all residents.

Technical Assistance – ODW

In 2007, the Environmental Protection Agency (EPA) published short-term revisions to the LCR regulations to improve the rule's overall effectiveness in several critical areas. These areas include the implementation of monitoring protocols, the treatment of water supplies, the enhancement of customer awareness regarding lead and copper risks, and the systematic replacement of lead service lines.

Currently, Delaware's Community Water Systems (CWS), as well as Non-Transient Non-Community Water Systems (NTNC), are actively adjusting to these significant regulatory changes. They are specifically concentrating on the recent updates captured in the EPA's

Lead and Copper Rule Revisions (LCRR) and the Lead and Copper Rule Improvements (LCRI). The updated regulations impose rigorous requirements, such as the creation of detailed service line inventories, the acceleration of lead pipe replacements, and the establishment of lower thresholds for lead testing.

Delaware benefits from unique geological conditions that contribute to a low occurrence of naturally occurring lead in its groundwater. Additionally, the water treatment processes employed by local drinking water providers play a crucial role in ensuring safety. The state is currently experiencing a notably low rate of non-compliance with the LCR, with only 1% of regulated PWSs reporting issues. This highlights the effectiveness of the state's efforts to maintain water quality standards.

To comply with federal mandates, ODW formed a successful partnership with 120Water, a company specializing in data management and water quality management. This collaboration is key in meeting the EPA's requirement for the submission of initial Lead Service Line (LSL) inventories, which had a deadline of October 16, 2024. Importantly, Delaware has achieved a 100% submission rate for these inventories in partnership with 120Water, reflecting a strong commitment to adhering to regulatory standards and ensuring public health and safety regarding lead exposure in drinking water systems. ODW will continue to ensure that compliance with this rule does not decline.

Throughout this reporting period, ODW actively engaged with a variety of PWSs to provide essential technical assistance related to regulatory compliance. This included the assignment of accelerated reduced-monitoring schedules to ease the burden on these systems while ensuring public safety. In addition, ODW sent out over 465 reminder letters to PWSs that clearly outlined their monitoring obligations and reinforced the importance of adherence to these requirements. As a result of these proactive measures, there has been a remarkable level of compliance with the LCR, reflecting the commitment of both ODW and the PWSs to maintaining safe drinking water standards.

Technical Assistance – External Agencies

The Capacity Development Program, in collaboration with the Delaware Rural Water Association (DRWA), provides essential technical assistance to municipal and community water systems that encounter ongoing compliance challenges. To support these systems, DRWA offers the option of employing an interim water operator, commonly known as a "circuit rider," to assist those in need of temporary support due to unforeseen circumstances. Furthermore, DRWA conducts technical assistance site visits throughout the year to ensure continuous support. This service is made possible through funding from the EPA.

The Capacity Development Program currently encourages PWSs to develop, implement, and maintain asset management plans for their water systems. ODW staff continues to encourage PWSs via sanitary survey letters and during site visits. Training may also be provided by SERCAP: https://sercap.org/about/who-we-serve/community-government-groups

and by DTCC: https://www.dtcc.edu/continuing-education/workforce-training/georgetown/environmental-training-center/.

Drinking Water State Revolving Fund applicants

DWSRF is a loan fund established by the 1996 Amendments to the Federal Safe Drinking Water Act. Its purpose is to assist PWSs in replacing aging infrastructure, adding needed treatment, or completing improvement projects. In Delaware, the DWSRF is administered by the DPH Health Systems Protection Section.

All DWSRF applicants must have a Capacity Development Assessment. PWSs that do not comply with the National Primary Drinking Water Regulations are ineligible for DWSRF funds unless:

1. The system's owner or operator agrees to undertake feasible and appropriate operational changes, or

2. Financial assistance from the DWSRF will ensure long-term system compliance.

The Capacity Development Assessment encompasses an evaluation of compliance history, wellhead protection measures, emergency response plans, maintenance strategies, rate structures, capital improvement initiatives, and organizational management practices. Should a system demonstrate insufficient capacity, operators receive support from Capacity Development staff and DTCC.

All municipalities applying for DWSRF loans are required to attend financial and managerial training provided by DTCC on asset management, capital improvement planning, or rate setting. During this reporting period (July 1, 2023, to June 30, 2026), 52 loans were closed under the DWSRF program, with a total loan amount of $156,253,669.00.

GROUP TRAINING SESSIONS

In addition to assisting individual PWSs, the Capacity Development Program contractors held several group training sessions for system operators, supervisors, and elected and appointed officials.

Limited License Water Operator Training

Delaware's community water systems and non-transient non-community water systems are required to have a licensed drinking water operator. This requirement includes daycare centers, senior centers, businesses, and schools that provide drinking water for 25 or more people daily. While these populations are generally considered the most vulnerable to contaminants, daycare providers are the least likely to take daytime classes in water operations or have the funds to contract with a licensed water operator.

To address this concern, ODW's Capacity Development Program, in conjunction with the DTCC Environmental Training Center in Georgetown, Del., provides customized operator training to these facilities. This training is available to all operators of daycares, schools, and senior centers. During this reporting period, 16 operators were trained. Without this specialized training, many of these non-transient non-community water systems would have either been out of compliance or financially burdened if they had to hire a licensed water operator.

KEY ELEMENTS OF THE CAPACITY DEVELOPMENT PROGRAM

Operator Training

Since 1998, Delaware has required PWS operators to be trained and licensed to operate and maintain PWS in compliance with state and federal drinking water regulations. DPH began issuing PWS operator licenses in 2000. Delaware currently has 451 licensed water operators, including 26 limited license operators.

DTCC conducts the Base Level Water Operator training for water operators. This entry/base level course prepares students for the state certification exam. Students learn basic water system operator responsibilities and receive education on water sources and treatment, math, pumps, disinfection, lab procedures, treatment plant operations, and safety. During this reporting period, 72 candidates enrolled in this training program and 53 candidates completed the course. For more information about operator training, visit: Workforce Development and Community Education Continuing Education Catalog July - December 2026 (dtcc.edu).

The Capacity Development Program's innovative email newsletter, the *Blast*, has strengthened communication between ODW and PWSs since 2018. This vital resource delivers timely and relevant updates about upcoming training opportunities and complimentary webinars designed to enhance knowledge and skills within the community. The *Blast* serves as a vital resource for Public Water Systems, delivering timely and relevant electronic updates that include not only information about upcoming training opportunities and complimentary webinars, but also educational sessions designed to enhance knowledge and skills within the community. Additionally, the Blast provides essential updates on regulatory changes, legislation, and compliance information that are critical to maintain water safety standards.

Currently, the *Blast* is distributed monthly or on an as-needed basis to certified water operators and their administrative contacts. The feedback from these professionals has been overwhelmingly positive, highlighting the newsletter's effectiveness in keeping them informed and engaged. In a bid to foster greater community involvement, the Capacity Development team is actively working to expand the newsletter to target a wider range of stakeholders within the drinking water sector. This inclusive approach aims to ensure that more voices are heard, and more resources are shared throughout the community dedicated to providing safe and clean drinking water.

New System Authority

DHSS has the authority to prevent the construction of new PWSs that do not have the ability to ensure safe drinking water now and into the future. This provision assures that every new water system has technical, managerial, and financial capacity. This authority falls under 16 Delaware Code § 122(3)(c).

DRINKING WATER STATE REVOLVING FUND

The Drinking Water State Revolving Fund (DWSRF) is an essential financial resource that provides low-interest loans specifically designed for PWSs. This funding supports crucial initiatives to improve water service quality and reliability.

PWSs can utilize these loans to replace aging infrastructure, such as outdated pipes and treatment facilities that compromise water safety. Additionally, DWSRF financing can be employed to implement advanced treatment technologies necessary for meeting current health standards and regulations. Moreover, the funds can facilitate various improvement and expansion projects, ensuring that communities have access to safe and sufficient drinking water.

Overall, DWSRF plays a vital role in upgrading public water systems, addressing both immediate and long-term needs to safeguard public health and enhance water delivery systems.

Existing Programs

Several other programs within the ODW build the capacity of PWSs. The Capacity Development Program works closely with and complements these activities:

- **Sanitary Surveys:** Sanitary surveys play a crucial role in maintaining the safety and quality of public water supplies. These comprehensive evaluations focus on the water system's sources, treatment processes, and storage facilities. By identifying potential defects, sanitary surveys help protect consumers from threats to water quality. Additionally, these surveys ensure that water systems comply with relevant regulations, thereby promoting public health and safety.

- **Technical Assistance:** ODW staff investigate various water system components to determine the cause of problems and suggest solutions. ODW staff provide advice about operating and maintaining equipment.

- **Plan Review:** An environmental engineer reviews plans for new PWSs or proposed changes to existing systems. Plan review ensures that owners and users of PWSs have confidence that systems are technically sound and can efficiently and safely deliver water to consumers.

- **Monitoring:** Sampling and testing help protect the water quality of PWSs by identifying potential contaminants. DPH performs most of the monitoring for small and medium-sized PWSs. Compliance data is available at the Delaware Drinking Water Watch website (https://drinkingwater.dhss.delaware.gov/) and is summarized annually in the Annual Compliance Report (ACR) produced by the Public Water System Supervision Program at ODW. The ACR is available at Public Water System Supervision – DHSS

- **Approved Sampler/Tester (AST):** This class is designed to support Public Water Systems (PWSs) in performing regular monitoring. It provides individuals with the knowledge and skills needed to accurately conduct daily chemical readings, including measurements of chlorine and nitrate levels. By participating, attendees will become proficient in essential monitoring practices that are critical for maintaining water quality. By having certified individuals take daily readings, it is not required to have an operator on site every day. The class also certifies individuals to take bacteriological and chemical samples that are used for compliance and lets the owner of the water system have a better understanding of what is happening with their water system. This class is divided into two types: AST Basic and AST Refresher. During this reporting period, ODW delivered the AST Basic class to 115 participants and the AST

Refresher class to 24 participants. Delaware currently has 161 Approved Sampler/Testers.

- **Outreach and Education:** ODW has participated in annual local events, including the Delaware State Fair in Harrington, the Rural Water Expo in Milford, Del., and the Delaware Rural Water Association's Annual Technical Conference & Exhibition in Harrington, Del.

FACTORS THAT IMPAIR THE CAPACITY OF PUBLIC WATER SYSTEMS

Drinking Water as Ancillary Business

Creating safe drinking water might not be the top priority for many public water providers, but it is a vital mission with incredible implications. Many owners and managers of these facilities, particularly non-community water systems, may not fully grasp the complexities of drinking water, regulations, and the nuances of water system operations. This gap in understanding can lead to financial challenges that make the quest for clean, safe drinking water even more crucial and exciting. It is an opportunity for innovation and growth in a field that directly impacts health and well-being.

Asset Management

Asset management specifies and prioritizes periodic infrastructure additions, improvements, cost estimates, and periodic equipment update timelines. When actively managed, asset management will result in the protection of public health via the provision of safe drinking water.

Unlike most large municipalities, small municipalities and other community water systems rarely have asset management plans. Since increasing water rates is unpopular, planning and budgeting for PWS improvements is a low priority. This results in many small municipal water systems not having the financial capacity to effectively maintain their PWS over the long term, and they end up following a "fix when broken" strategy.

Financial Assistance Programs

Access to financial assistance programs is daunting for small communities (including small municipalities), and the administrative process/requirements can be intimidating to these systems.

Reluctance to Interconnect Public Water Systems

Interconnected water systems can minimize equipment duplication, create an economy of scale, and share personnel. Interconnected municipalities can reduce expenditures by reducing the costs of providing safe drinking water. Moreover, municipalities would assure their customers of greater continuity of water service during emergencies or mechanical failures. Political rivalry between municipalities and between municipalities and private utilities may thwart interconnection or consolidation. Resistance to changing existing drinking water infrastructure also prevents the study or implementation of new ideas.

FUTURE PROJECTS

The Capacity Development Program will identify PWSs needing assistance through the following control points:

1. Rank systems based on their compliance at least every three years. ODW will continue to rank systems to identify those that require assistance, and to identify compliance trends throughout the state.

2. Track LCR, LCRR, LCRI, LSLR compliance and continue to provide individual assistance to systems that either fail to monitor for lead and copper or exceed the action level.

3. Work actively with significant non-compliant PWSs, those with multiple violations within three years, and with systems that have an ETT score of 11 or greater.

4. Review the compliance history of PWSs that submit engineering plans to alter or expand their existing systems. Non-compliant PWSs are counseled about the necessary steps needed to achieve compliance before an approval to construct is issued.

5. Continue to work with PWSs to identify and sample for emerging contaminants such as PFAS (Per- and Polyfluoroalkyl) substances, a group of thousands of substances known as “forever chemicals.” Because of their low biodegradability, PFAS can persist in drinking and wastewater systems, causing widespread contamination and potential PWS remediation.

6. Continue to work actively with PWS owners/administrators, operators, and municipal leaders to educate them on the importance of creating, implementing, and maintaining an effective asset management plan. The program will solicit the aid of technical assistance providers to help PWSs create and implement asset management plans. The ODW trainer educator will provide asset management training to all public water system owners, operators, and board members to educate them on the importance of asset management. Additionally, as part of the capacity development review of

DWSRF loan applications, asset management is encouraged for all loan applicants.

7. Enhance a technical cybersecurity assessment tool designed to educate PWSs personnel about cybersecurity best practices. This tool will assist PWSs in identifying vulnerabilities and gaps in their cybersecurity posture and offer recommended actions to effectively mitigate these risks. By implementing this resource, PWSs can strengthen their defenses against potential cyber threats and ensure the security of critical water infrastructure.

CONCLUSION

Capacity development addresses PWSs' technical, managerial, and financial capabilities to comply with the National Primary Drinking Water Regulations currently and in the future.

The program works in partnership with the ODW Public Water System Supervision Program, the DPH's Office of Engineering, DNREC, and other entities to form a network of support. The Capacity Development Program examines underlying issues that cause PWSs to become non-compliant, thus compromising the quality of the public drinking water they provide and, therefore, public health.

The Program assists PWSs in achieving compliance by educating water system purveyors about the importance of providing safe drinking water and advising them about equipment, training, and processes needed to avoid non-compliance.

DPH attributes most of the Capacity Development Program's success to the cooperative nature of its staff, the willingness of water operators and owners to improve operations, and numerous technical partnerships.