

State Policy Options for Small and Rural Water Systems

Introduction

Nearly 90% of the more than 150,000 public water utility systems in the United States serve fewer than 10,000 people, and more than half serve fewer than 500 people.

Community water systems, which number about 49,500 and serve fewer than 10,000 people, may face challenges providing safe and reliable drinking water to their customers for a variety of reasons, including lack of financial resources, decaying infrastructure and an inability to attract and retain a workforce. Given the large percentage of small systems, it can be challenging for states to provide them with the level of support they require.

“Small systems” are defined by the Safe Drinking Water Act and the U.S. Environmental Protection Agency as those serving populations of fewer than 10,000 people.

“Very small systems” serve fewer than 3,300 people.



Key Issues and Challenges for Small Systems

Small water utilities face obstacles including changes in the economy and difficulties hiring and retaining system operators and improving infrastructure. These issues can result in challenges meeting [Safe Drinking Water Act \(SDWA\) requirements](#).

- **Rate setting and equity:** Large water systems may be able to provide services at a lower cost per customer by spreading operations and maintenance costs over a larger pool of ratepayers. Because small systems have comparably fewer ratepayers, rates for some small, disadvantaged communities [often exceed](#) levels considered affordable.
- **Technical and financial capacity:** Operational and managerial workforces support these water systems directly and at the state level. Small water systems can face capacity challenges related to hiring staff or investing in and maintaining infrastructure over time. These issues can result in small systems falling out of compliance with state and federal safe drinking water standards.

State Policy Options for Small Water Systems

States have considered a range of strategies to address the needs and water quality concerns associated with small water systems, including implementing mechanisms for building system capacity, tracking data and evaluating approaches for enhancing water system partnerships.



CAPACITY BUILDING AND TECHNICAL ASSISTANCE

States are evaluating how to build capacity for small water systems, including supporting them in maintaining and strengthening technical and financial capacity.

- Maryland considered a bill in 2021 ([SB 737](#)) to promote innovative uses of state revolving funds, including expanding the scope of

projects and borrowers eligible for assistance, setting up a potential revenue source for repaying loans, and prioritizing assistance for disadvantaged communities.

- The New Jersey Department of Environmental Protection [Capacity Development Program](#) supports small public water systems by providing free training, site visits and water sampling that are not part of routine monitoring to detect inadequacies that might go unnoticed.



DATA TRACKING

States have considered a variety of approaches for tracking data to help manage small systems.

- North Carolina [requires](#) local governments to report annually on the ability of their water systems to meet customer needs. This requirement enables the state to have a database of information on active water systems while helping local governments to plan for system improvements and anticipated challenges.
- In 2021, Louisiana enacted [SB 129](#) to require the Department of Health to develop a grading system for water utilities based on water quality and performance, with the goal of enhancing system accountability.



STRENGTHENING SYSTEM PARTNERSHIPS

States have sought to strengthen small water systems through mechanisms like consolidation, regionalization and other types of partnership agreements.

- Consolidation and Regionalization:

According to the [US Water Alliance](#), consolidation involves two or more entities becoming one, operating under the same governance, management and financial functions. Regionalization differs in that it involves arrangements among more than two systems and can potentially involve a larger geographic area, such as a county or watershed. These regional partnerships can vary in scope, such as financial management or equipment purchasing, and can even cross state borders.

States have made efforts to require or incentivize water system consolidation or regionalization. These policy approaches can create workforce and supply efficiencies and help small water systems address the issues that can lead to water quality violations.

California ([SB 88](#), 2015) enabled the State Water Resources Control Board to incentivize and require physical or operational consolidation of failing water systems.

North Carolina ([HB 97](#), 2015) established a grant to fund studies to evaluate the feasibility of consolidating multiple utilities and to determine the best way to carry out consolidation or regionalization.

West Virginia ([Distressed and Failing Utilities Improvement Act](#), 2020) directed its Public Service Commission to create an annual list of failing water and wastewater systems and to require system consolidation if certain conditions are met.

- Other Agreements

Water systems can also cooperate through informal partnerships, which allow systems to work together without contractual obligation. Informal cooperation [can include](#) sharing equipment, sharing bulk purchases and forming mutual aid agreements.

Informal cooperation between systems can also include the forming of water councils. The [Southern Maine Regional Water Council](#), for example, was created legislatively to promote regional water system cooperation, improve system resiliency, reduce customer expenses and strengthen future supply planning.

Approaches to Collaboration Between Utilities



SOURCE: U.S. WATER ALLIANCE

Funding for Small and Rural Water Systems

Clean Water State Revolving Fund: The CWSRF was created by the 1987 amendments to the Clean Water Act to help finance water infrastructure projects. Through the program, the U.S. Environmental Protection Agency and states partner to fund projects that address states' priorities. The EPA provides grants to the states. Historically, states contribute an additional 20% to match the federal grants, although that requirement may be reduced or eliminated via an act of Congress, as was the case with the American Recovery and Reinvestment Act of 2009 and the Infrastructure Investment and Jobs Act of 2021.

Drinking Water State Revolving Fund: The DWSRF was established in 1996 through amendments to the Safe Drinking Water Act. The fund helps water programs meet the health requirements outlined in SDWA. The EPA provides grants to the states, and states contribute an additional 20% to match the federal grants,

Fund	Types of Assistance	Eligible Projects
Clean Water State Revolving Fund	Loans Purchase of debt or refinance Guarantees and insurance Guarantee SRF revenue debt Loan guarantees Subsidization	<ul style="list-style-type: none"> • Construction of publicly owned treatment works • Nonpoint source • National estuary program projects • Decentralized wastewater treatment systems • Stormwater • Water conservation, efficiency and reuse • Watershed pilot projects • Energy efficiency • Water reuse • Security at publicly owned treatment works • Technical assistance
Drinking Water State Revolving Fund	Loans Refinancing Purchasing Guaranteeing local debt Purchasing bond insurance	<ul style="list-style-type: none"> • Treatment • Transmission and distribution • Source • Storage • Consolidation • Creation of new systems

SOURCE: U.S. ENVIRONMENTAL PROTECTION AGENCY



although that requirement may be reduced or eliminated via an act of Congress. The SDWA requires that states make at least 15% of their annual allotment available to public water systems that serve 10,000 or fewer persons.

EPA's Water Infrastructure Finance and Innovation Act Program: While mostly used for larger water infrastructure projects, the WIFIA can also help finance small and rural water projects, including building and upgrading wastewater and drinking water treatment systems. To qualify, projects must cost \$5 million or more and be located in small or rural communities with populations of 25,000 or less. Unlike the revolving funds, the WIFIA provides direct loans at U.S. Treasury rates to eligible entities, including state financing authorities; federal, state, local or tribal governments; partnerships; or corporations. The maximum amount eligible for financing with a WIFIA loan is 49% of the project's total cost.

Based on annual appropriations, the EPA also competitively awards millions of dollars to nonprofit organizations to provide **training and technical assistance** for small systems funding. The awards assist small water systems in maintaining compliance with the SDWA, building their financial and managerial capacity to provide safe drinking water over the long term, ensuring sustainable operations and improving water quality.

Further, the EPA provides training and tools to improve small wastewater system operations and management practices and make them more sustainable and resilient. The assistance is available through a grant program titled **Training and Technical Assistance for Rural, Small and Tribal Municipalities and Wastewater Treatment Systems for Clean Water Act Prevention, Reduction, and Elimination of Pollution**.

Additional EPA funding sources for small and rural water systems include:

- **Nonpoint Source Grants Program:** Provides grants for education, training, technical and financial assistance, technology transfer, demonstration projects, monitoring nonpoint source implementation projects, and other activities. Eligible projects focus on pollution from nonpoint sources and include decentralized wastewater systems.
- **Public Water System Supervision Grants Program:** Assists states, territories and tribes in developing and implementing programs to enforce SDWA requirements.
- **Water Pollution Control Grants Program:** Assists states, territories, the District of Columbia, Indian tribes, and interstate agencies in establishing and implementing ongoing water pollution control programs.
- **Small and Disadvantaged Communities Grant Program:** Helps communities afford projects to comply with SDWA regulations. Recipients include public water systems or tribal water systems that serve a disadvantaged community or a community of 10,000 or fewer people. The program requires a cost-share of no less than 10% of the total project costs, but that may be waived if it would cause the recipient financial hardship.

In addition to the EPA, the U.S. Department of Agriculture's Rural Utilities Service Water and Environmental Programs (WEP) provide loans, grants and technical assistance for small rural drinking water systems. WEP funding can be used to build water and waste facilities in rural communities and assists organizations that offer technical assistance and training to rural communities. Programs include the Rural Decentralized Water Systems Grant Program, which helps nonprofits and tribes create a revolving loan fund to increase access to clean, reliable water and septic systems; the Circuit Rider Program, which assists rural water systems that are experiencing day-to-day operational, financial or managerial issues; and the Water and Waste Disposal Loans and Grants Program, which helps fund clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and stormwater drainage.

Additionally, the U.S. Department of Housing and Urban Development's Community Development Block Grant Program provides funds for long-term community needs, including rehabilitation, construction or purchase of public facilities and infrastructure for water treatment and wastewater systems. Program regulations require that at least 70% of a grantee's funds must benefit low- and moderate-income people.

Recent Funding for Small and Rural Systems

The American Rescue Plan Act of 2021 allows Coronavirus State and Local Fiscal Recovery Funds to be used to address the consequences of deferred maintenance in drinking water systems and the removal, management and treatment of sewage and stormwater, along with additional resiliency measures. Eligible projects include those under the Clean Water and Drinking Water State Revolving Funds as well as lead remediation and stormwater infrastructure.

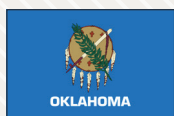
Examples of recent state legislation:



Florida (SB 2500, 2021): \$25 million to the Department of Environmental Protection for a small-community wastewater grant program to assist with septic to sewer programs and wastewater system upgrades. Grants shall be provided to Rural Areas of Opportunity (Fla. Stat. §288.0656) and Fiscally Constrained Counties (Fla. Stat. § 218.67(1)). The department may not require a local match for such grants.



Nebraska (LB 1014, 2022): \$7 million for a rural drinking water project serving at least four communities in two contiguous counties to convert to groundwater sources and to provide for water system infrastructure and distribution.



Oklahoma (SB 429, 2021): Appropriations to the state Water Resources Board, including:

- \$5 million in grants for communities that own dams assessed to be in poor or unsatisfactory condition. Priority is provided to communities with a population of 7,000 or less.
- \$20 million to establish a grant program and to match tribal investment in rural water infrastructure projects.
- \$25 million in grants for communities of fewer than 7,000 residents or to water districts with fewer than 2,300 nonpasture taps for water and wastewater investments.
- \$20 million in grants for communities with more than 7,000 residents or to water districts with more than 2,300 nonpasture taps for water and wastewater investments.



South Carolina (HB 4408, 2022): \$900 million to the Rural Infrastructure Authority to administer and operate three programs providing grants to improve water, wastewater and stormwater infrastructure throughout the state.



South Dakota (SB 62, 2022): \$600 million to the Board of Water and Natural Resources to help fund water, wastewater, stormwater and nonpoint source projects. The grants are targeted to systems or municipalities with small populations.



Utah (State and Local Fiscal Recovery Funds 2022 Report): \$46.5 million to improve drinking water infrastructure in rural communities by replacing, upgrading, repairing or extending essential infrastructure while protecting public health.



Virginia (HB 7001, 2021): \$50 million to the Department of Health to support equal access to drinking water at small and disadvantaged community waterworks.

Administering SRFs: State Examples

States take varying approaches to the administration of their revolving funds, including creating agencies to handle the funds or tasking multiple agencies with joint administrative duties, or both.



Colorado: The state Department of Public Health and Environment administers the [state revolving fund program](#) with the Department of Local Affairs and the Water Resources and Power Development Authority.



Florida: The state Department of Environmental Protection [State Revolving Fund Management Program](#) supports the clean water and drinking water revolving fund programs by writing loan agreements, reviewing financial information, approving procurement, processing disbursements and managing billing.



Maine: The state Department of Health and Human Services and the Maine Municipal Bond Bank [jointly administer](#) the Drinking Water State Revolving Fund. The Drinking Water Program is the lead administrator, tasked with project management and technical support, while the Municipal Bond Bank oversees the loan application process and tracks money going in or coming out of the fund.



Pennsylvania: The [Pennsylvania Infrastructure Investment Authority](#) (PENNVEST) manages the financial aspects of the revolving fund programs, while the Department of Environmental Protection manages the technical aspects of the programs.



ADDITIONAL RESOURCES

NCSL Resources

- [ARPA State Fiscal Recovery Fund Allocations](#)
- [Infrastructure Investment and Jobs Act: Implementation and Key Resources](#)
- [PFAS: State Legislation and Federal Action](#)
- [State and Federal Efforts to Address Lead in Drinking Water](#)

External Resources

Please note that NCSL takes no position on state legislation or laws mentioned in linked material, nor does NCSL endorse any third-party publications; resources are cited for informational purposes only.

- Environmental Policy Innovation Center, [Falling Short of Data-Driven Policy: Better Resources are Needed to Track Water System Consolidation and Health Outcomes](#)
- University of California Berkeley, [Learning from California's Experience with Small Water System Consolidation](#)
- University of North Carolina Environmental Finance Center, [Consolidation of Water and Wastewater Systems: Options and Considerations](#)
- US Water Alliance, [Strengthening Utilities through Consolidation: The Financial Impact](#)

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