Great Lakes Water Workforce Recommendations

APRIL 2026

More than two million people make up the water workforce nationwide, They operate drinking water and wastewater treatment plants; manage stormwater; construct and maintain critical water infrastructure; oversee water rates and utility revenues; educate the public through communications materials and public meetings; and much more.[1] A fully staffed water workforce is essential for public health and water quality; however, almost 30% of the workforce is currently over 55 years old and only 5% is 20-24 years old.[2] Strategic planning and investment will be needed to replace a significant portion of the water workforce in the near future.

Clean water is foundational to the environment, economy, and culture of the Great Lakes basin. The region's Great Lakes, inland lakes, tributary rivers, and groundwater provide drinking water for more than 47 million people and directly generate more than 1.5 million jobs and $62 billion in wages annually.[3] The Great Lakes basin is vast and requires substantial, skilled human resources to manage the myriad pumps, pipes, plants, and reservoirs relied on for water services. A strong and durable water workforce is required to continue providing high-quality drinking water, treating wastewater, and managing stormwater to keep waterways clean throughout the Great Lakes region.

In July 2025, the Great Lakes Commission (GLC) hosted its first Water Workforce Roundtable event in Grand Rapids, Michigan. Attendees representing state agencies, water/wastewater utilities, trade/professional associations, and educational institutions shared ideas on how to advance job growth and workforce development across the Great Lakes region's water sector. During fall 2025, roundtable participants and additional contributors helped the GLC develop recommendations for addressing water workforce challenges and strengthening the sector for generations to come, with a particular focus on small and rural communities.

[1] U.S. EPA Office of Water (2024). *Interagency Water Workforce Working Group Report to Congress*. https://www.epa.gov/system/files/documents/2024-09/interagency-water-workforce-working-group-report-to-congress_august-2024-508-compliant.pdf

[2] U.S. Water Alliance (2025). *Tapping Potential:* The Economic Benefits of Investing in Water Infrastructure. https://static1.squarespace.com/static/67dd711d1a117219a03e4f7a/t/6917b2fbc2843b7310c7ace1/1763160827739/FINAL+VOW+Economic+Report.pdf

[3] Great Lakes Commission. Great Lakes Investment Tracker. https://investments.glc.org/

Great Lakes Commission des Grands Lacs

Federal Government

Investing in the water workforce creates well-paying, family-sustaining jobs that produce a staggering return on investment. According to a recent study, every $1 million invested in water creates $2.6 million in economic output, including more than 10 jobs and $830,000 in labor income.[4] Federal initiatives like the Innovative Water Infrastructure Workforce Development Program have enabled educational institutions, local governments, and other partners to train the next generation of water workers. The urgency of water workforce needs requires a whole-of-government approach as reported by the U.S. Environmental Protection Agency (U.S. EPA) in its Interagency Water Workforce Working Group Report to Congress.[5] To ensure communities and businesses can continue to depend on clean and safe water, the GLC and its partners offer the following recommendations for the federal legislative and executive branches.

U.S. Congress

- Continue to fund the Innovative Water Infrastructure Workforce Development Program administered by the U.S. EPA at a level not less than $20 million per year, with a specific new allocation of $4 million for efforts supporting water workforce innovation within the Great Lakes region.

> **CASE STUDY:** Between 2022-2025, the Toledo Metropolitan Area Council of Governments (now known as Lake Erie West Regional Council) and Owens Community College worked in partnership with utilities in northwest Ohio to develop a 16-week training program to recruit, train, and employ a new generation of water utility operators. A nearly $495,000 grant from the U.S. EPA Innovative Water Infrastructure Workforce Development Program allowed for the development of the pilot program, which offered the training at no cost to nearly 70 students and to date has filled at least 24 operator vacancies in the region.[6]

> **CASE STUDY:** The Water to Work Internship Program by Grand Rapids Community College, in partnership with Bay College and the city of Grand Rapids, offers a combination of academic learning, hands-on training, and paid internships. The program received two rounds of funding through the U.S. EPA Innovative Water Infrastructure Workforce Development Program, including a $1 million grant in 2024.
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> The 12-month program delivers online coursework through Bay College for a Water Technology Certificate and a paid internship at a west Michigan municipality. As of April 2026, 100% of interns who completed the program have been offered full-time employment with benefits.[7]

[4] U.S. Water Alliance (2025). Tapping Potential: The Economic Benefits of Investing in Water Infrastructure.

[5] U.S. EPA Office of Water (2024). Interagency Water Workforce Working Group Report to Congress.

[6] Toledo Metropolitan Area Council of Governments. Water Workforce Coalition Training Program. https://waterworksforyou.org/program

[7] Grand Rapids Community College. Water to Work Internship Program. https://www.grcc.edu/schools-departments/school-workforce-training/workforce-training-programs/water-sustainability/water-work-internship-program

- Continue to fund workforce development programs within U.S EPA and the departments of Education, Labor, Agriculture, Veterans Affairs, and other relevant agencies, and support continued cross-agency coordination such as the 2023 Memorandum of Understanding (MOU) between U.S. EPA and the U.S. Department of Labor and the 2020 MOU between U.S. EPA and the U.S. Department of Veterans Affairs.[8]
- Increase funding to U.S. EPA's RealWaterTA[9] and U.S. Department of Agriculture's Circuit Rider Program[10] (cooperatively administered by the National Rural Water Association) and direct both agencies to provide water workforce development assistance to utilities through these existing programs.
- Direct the Department of Education to assure that federal financial assistance is available for eligible students enrolled in water workforce related skill certificate programs through universities, community colleges, and vocational schools for both credit and noncredit programs.

U.S. Executive Branch

- U.S. EPA should host and maintain a website detailing funding opportunities from all federal agencies engaged in water workforce development akin to the summaries and hyperlinks included in the 2024 interagency report to Congress.[11]
- Improve the searchability of the U.S. Department of Labor's Apprenticeship USA website by including specific codes for available positions and updating search terms (i.e., produce results for water workforce apprenticeships when searching for "water," "wastewater," and similar terms).

State Governments

Great Lakes states play a crucial role in the supply of safe drinking water, the collection and treatment of sewage, and the management of stormwater. Each state oversees its own operator certification program to maintain compliance with federal and state-specific regulatory requirements intended to protect public health and safety. Exam, education, and training requirements for operator licenses vary by state and require sufficient funding for programming, including guidance for utilities on compliance obligations and succession planning. The following recommendations highlight opportunities for state governments to better support the region's water workforce, including opportunities to improve the training for drinking water and wastewater operators and level the playing field for small systems competing for a limited pool of workers.

State Legislatures

- Enhance funding for state operator certification programs to expand educational programming for drinking water and wastewater operators beyond operator certification test administration.
- Identify revenue sources to broadly support clean water, including water workforce development and training.

[8] U.S. EPA Office of Water (2024). Interagency Water Workforce Working Group Report to Congress.

[9] U.S. Environmental Protection Agency. Real Water Technical Assistance. https://www.epa.gov/water-infrastructure/real-water-technical-assistance-realwaterta

[10] NRWA. Circuit Rider Program. https://nrwa.org/circuit-rider-program/

[11] U.S. EPA Office of Water (2024). Interagency Water Workforce Working Group Report to Congress.

- Offer financial incentives for small and rural utilities to supplement wages for skilled water workforce staff, including access to statewide shared retirement/benefits pools so that wages in rural areas can be comparable to their larger and urban counterparts.
- Provide and/or expand tuition waivers or loan forgiveness programs for water workforce training and certification programs through accredited educational institutions.

> **CASE STUDY:** Michigan Reconnect is a statewide program that aims to ensure eligible Michiganders who do not have a college degree will have an opportunity to earn a tuition-free or deeply discounted associate degree or skills certificate. Michigan Reconnect covers any Pell-eligible associate degree or industry-recognized certificate programs at Michigan's public community colleges and tribal colleges.[12]

- Offer grant funding for small utilities to hire an apprentice(s)/intern(s) and plan for succession.

> **CASE STUDY:** The Wisconsin Wastewater Operators Association (WWOA) recently launched its Youth Apprenticeship Involvement Grant to help build the next generation of water and wastewater professionals. In its first year, WWOA awarded three $3,000 grants to member municipalities to support participation in Wisconsin's Youth Apprenticeship Program, helping offset wage costs associated with hosting a student apprentice. This initiative is intended to reduce financial barriers for small utilities while strengthening workforce development and succession planning.[13]

- Establish and fund a statewide water development advisory council of state agencies, utilities, academia, and other key stakeholders.

> **CASE STUDY:** Minnesota's Advisory Council on Water Supply Systems and Wastewater Treatment Facilities is comprised of state agency representatives, drinking water and wastewater treatment system operators, municipalities, and members of the public.[14] Its goal is to gather advice related to: the classification of water supply systems and wastewater treatment facilities; the qualifications and competency evaluation of drinking water and wastewater treatment system operators; and additional laws, rules, and procedures regulating the operation of systems.

- Financially support system consolidation when clear workforce benefits are anticipated, including additional resources for staff salaries, benefits, and professional development, and increased opportunities for staff specialization to provide support for planning, asset management, operations and maintenance, engineering, and finance.[15]
- Direct state departments of education to ensure that state-level financial assistance is available for eligible students enrolled in water workforce related skill certificate programs through universities, community colleges, and vocational schools for both credit and noncredit programs.

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[12] State of Michigan. About Michigan Reconnect. https://www.michigan.gov/reconnect/about

[13] Wisconsin Wastewater Operators Association. Youth Apprenticeship Grant. https://wwoa.org/education/youth-apprenticeship-involvement-grant

[14] Minn Stat. § 115.7411. https://www.revisor.mn.gov/statutes/cite/115.7411

[15] US Water Alliance (2019). *Utility Strengthening through Consolidation: A Briefing Paper.* https://uswateralliance.org/wp-content/uploads/2023/09/Consolidation-Briefing-Paper_Final_021819.pdf

State Agencies

- Establish water workforce awareness or recognition weeks, and if they already exist, emphasize outreach to youth around drinking water, wastewater, and stormwater employment opportunities.

> **CASE STUDY:** Michigan's Water and Wastewater Professionals Workforce Week honors the dedication of the state's operators, technicians, administrative professionals, and other specialists who work to ensure communities have safe and reliable drinking water and that rivers and lakes are fishable and swimmable.[16]

- Foster relationships and collaboration across state agencies – including environmental, education, and labor departments – and higher education institutions to define pathways for career development in the drinking water, wastewater, and stormwater fields.
- Partner with educational stakeholders to develop and share apprenticeship and certification program curricula.
- Support partnerships to develop a statewide one-stop shop for educational resources, including self-paced learning modules, training videos, and plug-and-play curricula.

> **CASE STUDY:** American Water Works Association New York Section's One Water Workforce initiative is a one-stop shop for educational resources to connect students in Boards of Cooperative Educational Services, Pathways in Technology Academies, community colleges, and trade organizations to careers in New York's water, wastewater, and public works sectors.
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> The initiative's shared curriculum helps utilities and educators partner to build local talent pipelines for entry-level utility roles, provide hands-on learning, showcase the value of careers that protect public health and the environment, and create a clear pathway from education to initial certification and employment.[17]
>
> ONE WATER WORKFORCE

- Develop and manage a statewide database of available operators to share with systems when hiring needs arise.
- Incorporate activities on the water workforce within annual Earth Day programming.
- Create a system for rotating lecturers or shared programming, including a listing of utility-identified subject matter experts, to make certification/training courses accessible to educational institutions across the Great Lakes region, incorporating virtual and hands-on learning.
- Examine the application processes for operator certification and make necessary adjustments to remove any identified barriers.
- Develop a checklist for local governments and small systems to use when hiring contract operators, to ensure compliance requirements are met.

[16] Michigan Department of Environment, Great Lakes, and Energy. Water and Wastewater Professionals Workforce Week. https://www.michigan.gov/egle/about/organization/drinking-water-and-environmental-health/water-wastewater-professionals-week

[17] American Water Works Association New York Section. One Water Workforce. https://nysawwa.org/about/oww

Local Decision-makers

The need for water infrastructure investment in the Great Lakes basin spans the region, affecting urban centers, rural areas, and suburbs. While water systems at each scale require a robust water workforce, small towns and municipalities often have limited resources to meet staffing needs. A fully trained, competitively compensated water workforce is necessary to supply drinking water for communities and treat wastewater from industries that power Great Lakes economies. The skills required for these careers are also easily transferrable to other local government positions and are resistant to the rising influence of artificial intelligence on the workforce. The following recommendations will help local decision-makers boost local economic output and ensure high-quality and reliable water services by developing a skilled water workforce.

- Implement employment programs for high school students following an "earn while you learn" model focused on a variety of local government career paths, emphasizing the transferability of skills from these positions.
- Recognize the value of water operators and offer pay commensurate with the importance of the work.
- Increase collaboration between public works offices and school districts, higher education and other public institutions, potentially through locally led public events.

> **CASE STUDY:** Multiple partnerships across the Great Lakes region have produced successful public events to engage and educate community members on water stewardship and the vast array of careers available in the water sector. These events have included STEAM Along the Lakeshore in Muskegon, Michigan;[18] Rouge River Water Festival in Bloomfield Hills, Michigan;[19] and Diggers and Dumpers in Erie, Pennsylvania.[20]

- Assess the feasibility of establishing private funding mechanisms to support the industrial and commercial water workforce.
- Develop partnerships with nonprofit organizations, community colleges, or universities to collaborate on grant applications for water workforce development funding opportunities, especially when local governments are ineligible.

[18] Muskegon Community College. STEAM Along the Lakeshore. https://www.muskegoncc.edu/events/steam-along-the-lakeshore-2/

[19] Cranbrook Institute of Science. Rouge River Water Festival. https://science.cranbrook.edu/discover/freshwater-forum/rouge-river-waterfestival

[20] Macaroni KID. Diggers & Dumpers at Erie County Technical School. https://erie.macaronikid.com/events/68cafe5be0f4886296380fda/%EF%B8%8F-free-diggers-and-dumpers-at-erie-county-technical-school

Water/Wastewater/Stormwater Utilities

Whether nested within local government, standing as a separate public authority, or privately-owned, water utilities are the front line in providing clean water services to their communities. The following recommendations offer methods for water, wastewater, and stormwater utilities to build and maintain the Great Lakes water workforce of the future.

- Recognize staff as water heroes and offer communications training to staff interested in youth engagement or other outreach activities to raise community awareness.
  - For outreach activities, adequate resources for staffing and supplies should be provided.
  - Larger utilities should share communications materials and training opportunities with smaller neighboring utilities.
- Establish and sustain relationships with statewide rural water associations to support utility-led rural water apprenticeships.

> **CASE STUDY:** The two-year Registered Water and Wastewater Apprenticeship Program at the Alliance of Indiana Rural Water (AIRW) was developed in response to the industry's need to train the next generation of skilled workers and standardize training across the state of Indiana. The first rural water association in the nation to launch such a program, AIRW has 108 current active apprentices and 94 program graduates since enrolling its first apprentice in 2018.[21]

- Develop and implement MOUs/mutual aid agreements to support sharing staff and resources in neighboring communities.
- Build partnerships with educators and community partners such as youth councils, 4-H programs, and other community-based organizations.
  - Connect with scouting organizations to offer site visits and other educational offerings to fulfill merit badge requirements.
  - Partner with high school technical centers to offer field trips and other learning opportunities.
- Boost workforce retention by providing benefits, training opportunities, and pathways for operators to become supervisors.
- Adopt continuous asset management practices to plan for the future, including both infrastructure and staff.[22]
- Develop partnerships with educational institutions to tap into their institutional knowledge regarding grant procurement and administration.

[21] Alliance of Indiana Rural Water. Water & Wastewater Operations Specialist Apprenticeship Programs. https://www.inh2o.org/apprenticeship-program

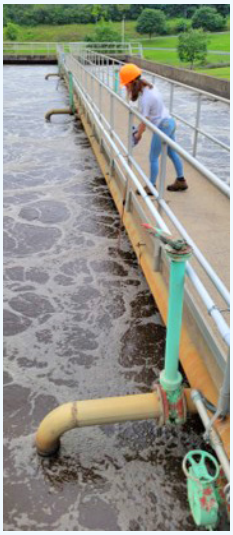
[22] Great Lakes Commission (2022). *Approaches for Improving Great Lakes Water Infrastructure: A Blueprint*. https://www.glc.org/work/glwi/

Trade and Professional Associations

Advocates for and representatives of the water workforce have organized various trade and professional associations for the water sector, including the American Water Works Association (AWWA), National Association of Clean Water Agencies (NACWA); Association of Metropolitan Water Agencies (AMWA); National Rural Water Association (NRWA); and the Water Environment Federation (WEF), as well as state chapters of national associations. These groups provide technical and educational resources for their members and host forums to share knowledge. The following recommendations present opportunities for professional and trade associations to support the water workforce across the Great Lakes region.

- Provide allotments for high school students to participate in summer internship programs.

> **CASE STUDY:** Since 2021, the Pollution Control Facility (PCF) in Watertown, New York, has participated in the Work in Water Program,[23] sponsored by the New York Water Environment Association, to introduce high school students to careers in the water and wastewater sector. The PCF has seen a clear increase in student interest in water and wastewater careers as a direct result of participation in the Work in Water Program. Several students have returned to the facility as college interns, demonstrating the program's success in creating a tangible workforce pipeline.



- Partner with states to conduct statewide "earn while you learn" apprenticeship programs through rural water associations while providing funds for rural utilities to supplement salaries and pay for equipment.
- Offer special sessions or pre-conference workshops for meeting attendees interested in youth engagement or workforce development.
- Provide technical assistance to municipalities for workforce development.

[23] New York Water Environment Association. Work in Water. https://nywea.org/operator-certification/work-in-water/

Contributing Organizations

Alliance of Indiana Rural Water
Ann Arbor Water
Association of State Drinking Water Administrators
Bay College
City of Fremont, Ohio, Water Reclamation Center
City of Midland, Michigan
City of Minneapolis, Minnesota
City of Plymouth, Minnesota
City of Rock Island, Illinois
City of Toledo, Ohio
City of Watertown, New York, Pollution Control Facility
Cuyahoga County, Ohio
Delta College
Erie 2 Chautauqua-Cattaraugus-BOCES
Erie Water Works
Flint Community Lab
Freshwater Society
Grand Rapids Community College
City of Grand Rapids Water System
Great Lakes Community Action Partnership
Great Lakes Environmental Infrastructure Center
Great Lakes Water Authority
Illinois Environmental Protection Agency
Illinois Rural Water Association
Indian Health Service
Indiana Dept. of Environmental Management
Indiana Industrial Operators Association
Inter-Tribal Council of Michigan
Ivy Tech Community College Environmental Management Institute
Lake Erie West Regional Council
Metropolitan Council
Metropolitan Planning Council
Metropolitan Water Reclamation District of Greater Chicago
Michigan Section, American Water Works Association
Michigan College Access Network

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Contributing Organizations

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Michigan Dept. of Environment, Great Lakes, and Energy
Michigan Dept. of Labor and Economic Opportunity
Michigan Rural Water Association
Michigan Sea Grant Extension
Michigan Water Environment Association
Milwaukee Metropolitan Sewerage District
Minnesota Department of Health
Minnesota Pollution Control Agency
Minnesota Rural Water Association
National Association of Clean Water Agencies
National Parks Conservation Association
Natural Resources Defense Council
New York State Dept. of Environmental Conservation
Northeast Ohio Regional Sewer District
Northeast-Midwest Institute
New York Section, American Water Works Association
Ohio Dept. of Education and Workforce
Ohio Environmental Protection Agency
Owens Community College
Pennsylvania Dept. of Environmental Protection
Pittsburgh Water
Racine Wastewater Utility
Rural Community Assistance Partnership
Southern Illinois University Edwardsville Environmental Resources Training Center
U.S. Environmental Protection Agency
West Michigan Works
Wisconsin Dept. of Natural Resources
Wisconsin Dept. of Workforce Development
Wisconsin Wastewater Operators Association

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