

CHARLOTTE WATER & UNION COUNTY PUBLIC WORKS

TEMPORARY OWNERSHIP TRANSFER FOR LONG-TERM SUCCESS

A Water System Partnerships Case Study



HIGHLIGHTS

Challenge Statement:

Union County Public Works faced challenges related to aging infrastructure and budget limitations. These concerns led them to seek outside aid. Charlotte Water and Union County Public Works needed to create a partnership to address these concerns, serve the community, allow Union County Public Works to continue operating their own water system, and to increase public health protection.

Partnership Features:

The Charlotte Water and Union County Public Works partnership is an example of a temporary ownership transfer. Union County Public Works and Charlotte Water entered a short-term partnership, under an MOU, to address Union County Public Works' operational issues. Under the agreement, Charlotte Water took over operations and management of the Union County Public Works water system for three years.

Primary Benefits:

Both water systems have benefited from the partnership, including receiving employee training, new mentorship opportunities, improved water system compliance, and sustainability of operations. The partnership also benefited the community by increasing protection of public health.

Accomplishments:

Charlotte Water helped Union County Public Works develop their own maintenance, safety, and training programs. Union County Public Works addressed its compliance issues and is successfully managing its own operations. The two water systems continue to partner and support one another as needed.

Creating the Charlotte Water and Union County Public Works Partnership

Background

Charlotte Water is the largest public water and wastewater system serving the Carolinas. It provides services for over 1 million people in Mecklenburg County, including the City of Charlotte and five surrounding towns. Charlotte Water has approximately 950 employees, 4,000 miles of sewer lines, and another 4,000 miles of drinking water distribution mains.

Union County Public Works is a public water and wastewater system that serves a population approximately one-fifth the size of Charlotte Water's customer base. Aging infrastructure, lack of appropriately certified operators, and a lack of financial capacity led Union County Public Works to seek external solutions to achieve regulatory compliance. Upon hearing this, Charlotte Water reached out to Union County Public Works leadership to discuss how they could provide support while allowing Union County Public Works to maintain control of their operations.

Charlotte Water has been recognized by national trade associations for their excellent compliance history and was in a strong position to provide short-term support to Union County Public Works.

Critical Drivers

- ◆ **Aging Infrastructure and Budget Issues:** Union County Public Works encountered drinking water and wastewater compliance challenges due to aging infrastructure, such as several old waterlines that decreased water quality, and budget limitations. Outdated technology made it challenging to effectively serve their customers.
- ◆ **Maintaining Public Ownership:** The two public water systems saw an opportunity to develop better public-public partnerships by working together. Charlotte Water believed that the two utilities shared the same goals in serving their communities. Both water systems would see the benefits of improved public health and environmental protection for the larger community.
- ◆ **Workforce Development:** Partnering provided an opportunity for Charlotte Water and Union County Public Works employees to develop new skills and learn from one another, while working on new tasks outside of their typical job roles. Union County Public Works and Charlotte Water realized for both water systems to benefit from this partnership and help the community, they needed to combine operations and management for a short period of time. As a result of the partnership, Union County Public Works addressed the issues they faced and became a more sustainable public water system for their customers.

Water System Partnerships as a Solution

Water systems across the country are facing a myriad of challenges, including technical, managerial, and financial capacity issues. Water system partnerships refer to a range of collaborative activities in which water systems can pool resources, expertise, and experience. Bringing water systems together through partnerships can help reduce noncompliance issues, risks to public health, and redundant workloads. Water system partnerships are informal or formal relationships that help water systems identify opportunities to leverage benefits that would be difficult to achieve independently.

Charlotte Water and Union County Public Works realized that a public-public partnership would provide opportunities to improve Union County Public Works' infrastructure while strengthening both water systems' workforces. Combining the water systems for a short period of time, through a temporary **ownership transfer partnership**, was beneficial to both water systems and their customers.

Building Blocks of Partnership

After management at Charlotte Water and Union County Public Works met, the two water systems decided that, on a short-term basis, Charlotte Water would run Union County Public Works to help rebuild their operations. In **December 2013**, Union County Public Works and Charlotte Water signed an interim agreement to begin discussions and planning. This allowed the two water systems to plan together and share data and information they may not have been as comfortable sharing if they did not have the initial interim agreement in place.

Later, after careful discussion and planning, they would set up a more comprehensive agreement, a Memorandum of Understanding (MOU).



TYPES OF PARTNERSHIPS

Informal Cooperation:

Coordination with other water systems, but without contractual obligations. Informal partnerships may consist of partners sharing equipment and agreeing to help each other with emergency response management.

Contractual Assistance:

Set up a contract with another water system or service provider where the contract and service ultimately remain under the water system's control. This type of partnership may include a system purchasing water from another system or contracting out operations and management to another water system.

Joint Powers Agencies:

Creation of a new entity designed to serve the water systems that form it. These partnered water systems may share system management, operators, or source water.

Ownership Transfer:

Merger or mutual transfer of an existing entity or creation of a new entity. This type of relationship may be represented by one water system being acquired by another, or by being connected to another water system physically, financially, and managerially.



Charlotte Water completed an evaluation of Union County Public Works’ maintenance needs and categorized their findings into three categories based on the level of urgency:

- Critical (e.g., significant repairs to the ultraviolet disinfection treatment process at one of Union County Public Works’ plants),
- Necessary improvements (e.g., increasing the storage volume of one of the water tanks to meet peak demand), and
- Additional recommendations (e.g., expanding one of the Union County Public Works’ plants).

To maintain compliance with federal regulations, critical issues were addressed first, followed by necessary and then additional recommendations.

In **April 2014**, the two water systems signed a memorandum of understanding (MOU) to organize and clearly define the requirements for each water system under the partnership. The three-year MOU created trust and ensured understanding of the scope of the partnership before it began. It was important to both water systems that Charlotte Water was not going to permanently operate Union County Public Works.

To begin the partnership under the MOU, Union County Public Works met with Charlotte Water operations managers, treatment plant supervisors, and water operators to create a plan for transition. Union County Public Works employees attended trainings on sampling processes, evaluating treatment plants, supervisory control and data acquisition systems, and updated technology. Charlotte Water also provided an experienced maintenance manager and three mechanics to work at Union County Public Works facilities. Other Charlotte Water employees periodically helped with specialized tasks.

During the temporary ownership transfer partnership, all Union County Public Works employees became Charlotte Water employees and received the same employee benefits packages. This helped combine the two water systems and create a smooth transition in and out of the temporary ownership transfer arrangement. Additionally, Charlotte Water’s business employees helped in the transition, as they provided trainings on organizing payroll and general administrative tasks.

To keep the water systems in constant communication, Charlotte Water met with Union County Public Works management once a month to complete a monthly status report and discuss water system activities and challenges.

In their MOU, it was required that Union County Public Works notify Charlotte Water one year in advance when they were ready to transition out of Charlotte Water. In fall of **2017**, after three and a half years, Union County Public Works approached Charlotte Water about being ready to transition back to managing its water system independently. When Union County Public Works was able to achieve compliance on their own, Charlotte Water made the transition out of Union County Public Works by **July 2018**. To facilitate a smooth transition back to two distinct water systems,

CHARLOTTE WATER – A HISTORY OF EXCELLENCE

Charlotte Water has received various National Association of Clean Water Agency (NACWA) Peak Performance Awards; two of their plants received platinum awards and the remaining received gold or silver awards. They have also been recognized by the Water Environment Federation (WEF), the Water Environment Research Foundation (WERF), and the Water Reuse Association, as a Utility of the Future.



Installing a large diameter pipe fitting.

employees could choose which water system to work for permanently. Since benefits packages were consistent, employees could pick the best career option.

Best Practices and Successful Strategies

The partnership was a success mostly because Charlotte Water and Union County Public Works utilized a formal partnership agreement and incorporated key players to achieve their goals.

A Formal Partnership Agreement

Any written arrangement, such as a contract or MOU, can help ensure the partnership's success because it provides:

- ◆ **Clarity:** Charlotte Water and Union County Public Works (including leadership, employees, and the legal department) clearly understood how the partnership would affect each water system's operations and management before the partnership began. This provided a clear guide to navigate the transition and combination of operations.
- ◆ **Trust:** Due to the effective MOU, the water systems trusted one other. This partnership was just the beginning of a relationship between the two water systems; each water system now has a neighbor they can depend on in the future.
- ◆ **Communication:** During the partnership, there were arising challenges that needed to be addressed. For example, there were necessary infrastructure improvement tasks which were not realized until Charlotte Water began working at the water system (e.g., a Union County Public Works oxidation ditches mixer needed to be replaced due to an ineffective screening system). Effective communication and strong leadership from both water systems allowed Charlotte Water and Union County Public Works to address these unforeseen issues efficiently and effectively.

Key Players

The Charlotte Water and Union County Public Works partnership was successful, in part, due to engagement with these key players:

- ◆ **Water System Directors:** After Union County Public Works reached out to private industry for aid, Charlotte Water's director approached Union County Public Works to help. The water system directors worked together to create a partnership that benefitted everyone.
- ◆ **Water System Managers:** When Charlotte Water began running Union County Public Works' operations, they sent managers who were known to have strong mentorship and training skills to work at Union County Public Works. This helped the transitions run smoothly and built trust between employees.



Reviewing engineering plans on site.

CHARLOTTE WATER AND UNION COUNTY PUBLIC WORKS' MOU

The MOU was crucial to the success of the partnership, as it clearly laid out the requirements for both water systems. Well-defined definitions were important to designate each system's roles and when Charlotte Water needed Union County Public Works' approval before moving forward with a given task. Having a mutually beneficial and agreed-upon MOU in place created trust and open communications between the water systems.



Funding

Under the interim agreement, Union County Public Works paid a monthly fee for Charlotte Water's services to cover the management time. Once the formal MOU was in place, Charlotte Water calculated a base compensation that would be paid based on the normal operating costs at Union County Public Works. The water systems negotiated costs per month based on this value and Charlotte Water's baseline for water system operations.

To ensure Charlotte Water customers would not be impacted by the partnership costs, partnership activities were kept separate from Charlotte Water's operating budget.

Partnership Benefits

Water systems can achieve significant benefits through partnering. Charlotte Water and Union County Public Works gained valuable knowledge and built relationships that can be utilized in the future. Forming strong connections with neighboring water systems benefits the communities, employees, and the water systems. This partnership has helped provide both water systems with:

- ◆ **Increased Communication and Relationship Building:** Charlotte Water and Union County Public Works continue to ask one another for support and assistance as needed.
- ◆ **Workforce Development Opportunities:** Charlotte Water employees were able to take on more leadership roles during the partnership, increasing job training and promotion opportunities.
- ◆ **Updated Infrastructure:** Aging infrastructure was one of the main reasons Union County Public Works' water system was struggling. Through the support of Charlotte Water, they were able to update and replace key infrastructure components such as the expansion of a water storage tank.
- ◆ **Improved Water System Operations:** Union County Public Works became a more efficient water system because of increased communication, improved relationships, opportunities for workforce development, and improved infrastructure.
- ◆ **Improved Compliance with Federal Regulations:** Union County Public Works was able to protect public health by addressing maintenance needs, which helped improve compliance with federal drinking water regulations.
- ◆ **Increased Operator Certifications:** Before the partnership, most of the Union County Public Works employees were Grade II operators. Through partnering with Charlotte Water, they gained enough experience and training to be eligible to sit for the Grade IV operator exam, the highest level of water operator certification. By the completion of the MOU, all remaining operators had obtained Grade IV certification.



Worker performing maintenance on a sewer.



Installing new mains including a hydrant and valves.

Learning from the Charlotte Water and Union County Public Works Partnership

Charlotte Water and Union County Public Works discovered that conversations early in the partnership process created the conditions necessary for success.

Reach Out and Ask

This partnership has demonstrated that public water systems and their communities benefit greatly when a water system reaches out and asks for help. These opportunities improve public confidence that their public water systems will work together to protect the environment and public health.

Be Clear and Upfront

Having a clear agreement, in this case the MOU, was very important to keep the partnership organized and transparent and allowed the water systems to have upfront conversations about their needs and concerns before proceeding with changes to management structure and infrastructure. While creating the MOU required time, planning, and resources, these efforts were rewarded with a successful partnership that allowed Union County Public Works to ultimately maintain control of their water system and better serve their customers.

INTERESTED IN LEARNING MORE ABOUT WATER SYSTEM PARTNERSHIPS?

Water system partnerships can help water systems overcome challenges including aging infrastructure, compliance challenges, and limited technical and managerial capabilities. Partnerships provide opportunities to collaborate on compliance solutions, and operations and maintenance activities, which increase capacity and enable water systems to provide safe water to their communities.

To learn more about water system partnerships like the Charlotte Water and Union County Public Works partnership, visit the EPA's Water System Partnerships website: <https://www.epa.gov/dwcapacity/water-system-partnerships>.

RESOURCES

To learn more about the Charlotte Water and Union County Public Works partnership and other water system partnerships, follow these links to online resources:

- [Charlotte Water's Website](#)
- [Union County Public Works' Website](#)
- [EPA Water System Partnerships Website](#)



Workers prepare for pipe lining.