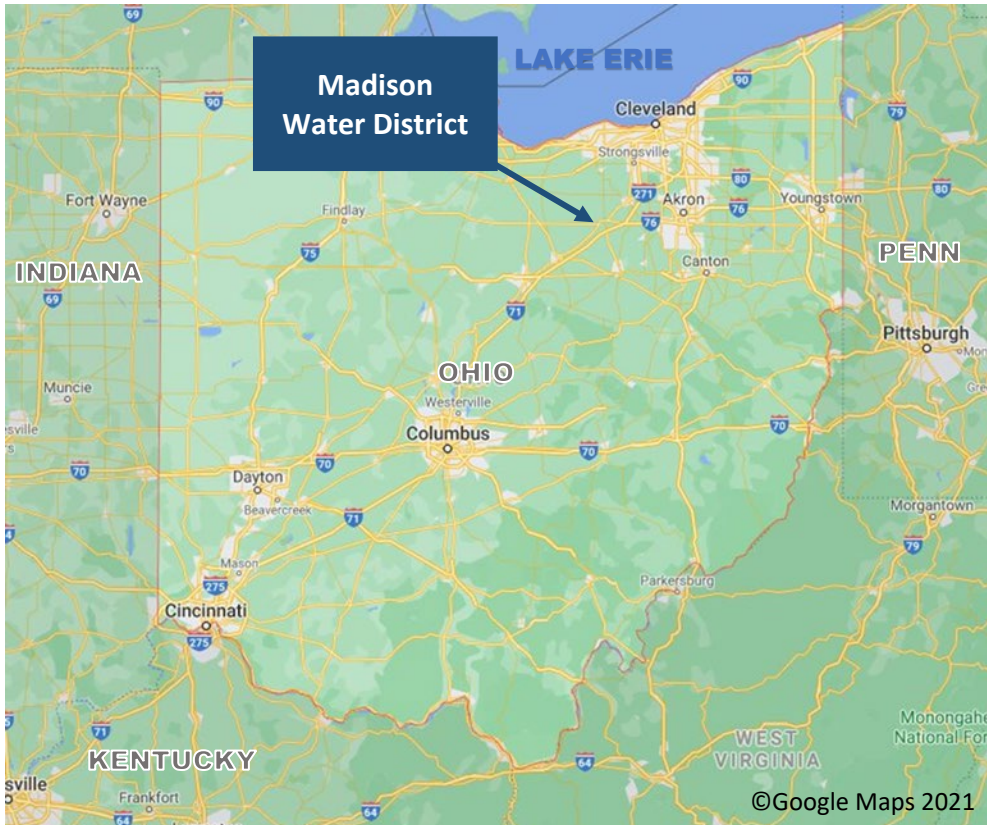


# MADISON WATER DISTRICT PARTNERSHIP

## NEIGHBORS HELPING NEIGHBORS

### *A Water System Partnerships Case Study*



#### **HIGHLIGHTS**

##### **Challenge Statement:**

Two water systems in Ohio struggling with their operations found support from their neighbor, Madison Water District. Altman Heights experienced diminishing well capacity and issues maintaining compliance, while Countryside Water Association had difficulty finding a new operator. Both, therefore, approached Madison Water District, a water system known to assist nearby communities, to discuss opportunities to work together.

##### **Partnership Features:**

The partnership with Madison Water District by Altman Heights and Countryside Water Association is a great example of ownership transfer as a solution. Madison Water District connected to these nearby water systems and now serves their communities.

##### **Primary Benefits:**

The customers of Altman Heights and Countryside Water Association are now able to receive properly treated water at no additional cost. With more customers, economies of scale allow for lower administrative costs and rates.

##### **Accomplishments:**

Madison Water District was able to successfully deliver safe drinking water to new customers and continue to lead by example by viewing partnerships proactively.

## ***Creating Madison Water District Partnerships***

### **Background**

Madison Water District provides water to nearly 2,100 people in Madison Township north of Mansfield, Ohio. The water system operates four wells that pump approximately 125,000 gallons of water per day. Since the formation of the Madison Water District in 1997, the water system has supported many nearby water systems through a forward-thinking approach to partnerships. Madison Water District has not only provided emergency connections to nearby water systems, but also acquired water systems to take on operation and management. For water systems of all sizes, including pizza shops, gas stations, and manufactured housing, Madison Water District has become a trusted neighbor and reliable water system in the region. In 2017 Madison Water District initiated a new partnership involving two struggling water systems, Altman Heights and Countryside Water Association.

## Critical Drivers

Due to the critical drivers below, Madison Water District connected to the Altman Heights and Countryside Water Association water systems and now provides water to the customers of these systems.

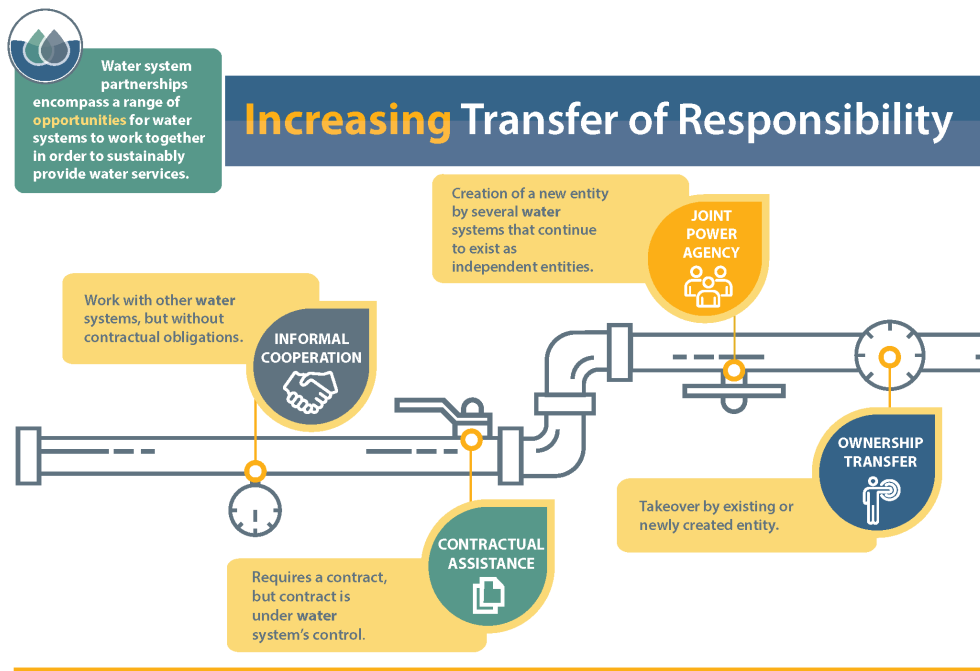
- ◆ **Aging Infrastructure:** Altman Heights encountered aging infrastructure and deteriorating wells, with no long-term plan to update them in a way that would have been economically feasible for the community.
- ◆ **Poor Water Quality:** Altman Heights also experienced increased levels of manganese in their source water, which posed a health risk to the public.
- ◆ **Aging Workforce:** Countryside Water Association had a long-standing operator that eventually retired, and the Association was struggling to identify and onboard a qualified replacement.



A sign at the entrance of the Madison Water treatment plant.

## Water System Partnerships as a Solution

Water systems across the country face a myriad of challenges, including technical, managerial, and financial (TMF) 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.



### 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:

Setup 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 water system purchasing water from another water system or contracting out operation and management to another water system.

#### Joint Power Agency:

Creation of a new entity designed to serve the water systems that form it. These partnered water systems may share water 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, managerially.

Madison Water District has participated in a variety of different types of partnerships. For example, Madison Water District has an ongoing partnership with the City of Mansfield to supply equipment and manpower as needed during emergencies. This is an example of an **informal cooperation partnership**. Madison Water District has also participated in multiple **contractual assistance**

**partnerships** to connect to nearby water systems for backup supply. The partnership between Altman Heights and Countryside Water Association is an example of **ownership transfer**. With the support from some key players, Madison Water District has become a trusted leader and partner to other water systems in Ohio.

### ***Building Blocks of Partnership***

Soon after the formation of the Madison Water District in 1997, its Board completed a study to explore the surrounding area within Madison Township and Mifflin Township to determine potential areas for Madison Water District to serve. This study investigated the possible consolidation of 100 public water systems and up to 1,000 or more customers with private wells within a two-mile radius. The study led to a few small interconnections and transfers of ownership but was not implemented to its full potential.

In **2005**, Madison Water District was able to utilize Ohio Rural Community Assistance Program (RCAP) to complete a rate study. The study was the beginning of a long successful relationship between RCAP and Madison Water District.

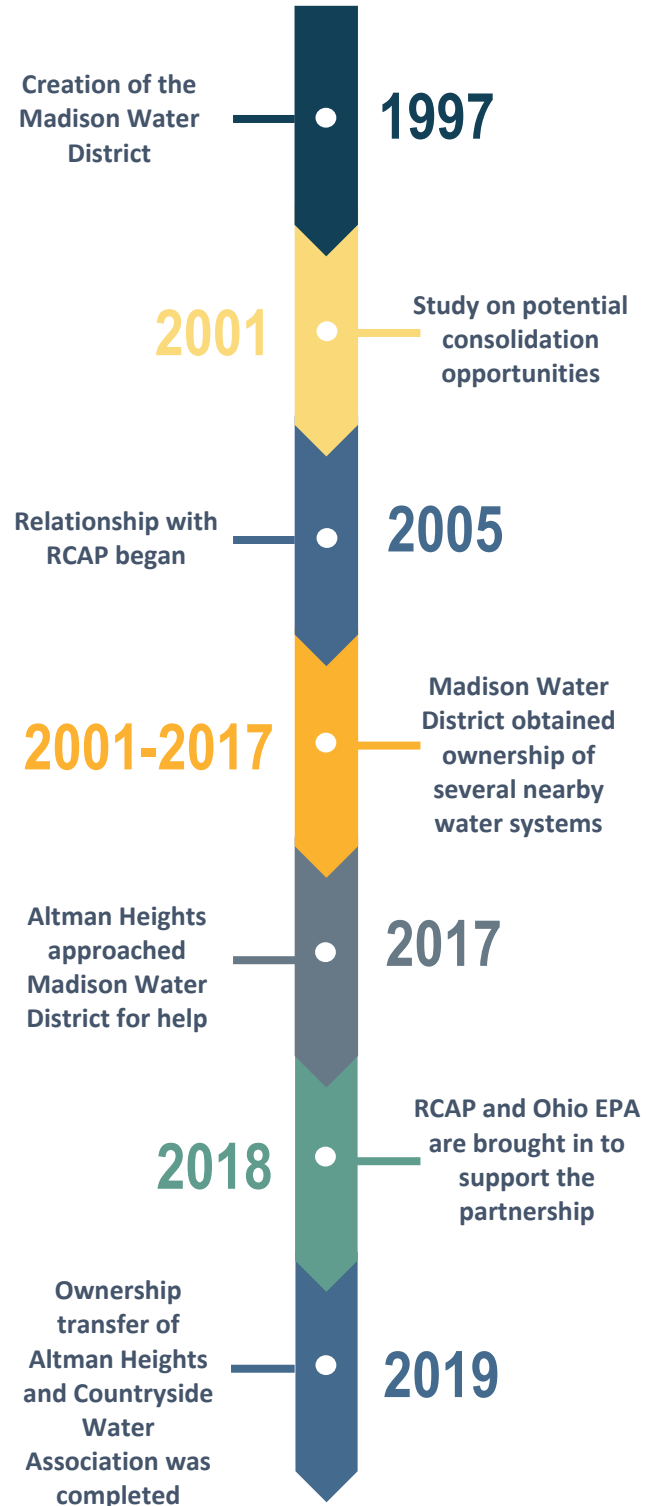
Between **2001 and 2017** Madison Water District connected to or took on ownership of a variety of water systems including funeral parlors, gas stations, restaurants and bars, child care facilities, and other public water systems as they began to deteriorate. RCAP has been supporting Madison Water District with these efforts as they continue to enhance their reputation in the local community.

In the spring of **2017**, a nearby water system, Altman Heights, was facing challenges treating their water to a safe level of manganese for public use and could not afford to replace or repair their aging infrastructure. Eventually, Altman Heights approached Madison Water District for aid because of their history supporting other nearby water systems.

Around the same time, Countryside Water Association was also interested in partnering with Madison Water District because their operator was preparing to retire, and they were struggling to find a qualified replacement.

In July of **2018**, after conversations with each of the water systems, Ohio Environmental Protection Agency (EPA) and RCAP started to support the facilitation of these partnerships with Madison Water District.

Soon after plans were discussed, the formal interconnection and ownership transfer of Altman Heights and Countryside Water Association to Madison Water District began. The project included the installation of approximately 9,600 linear feet of 6-inch water main, gate valves, new water meters, and new water meter pits. It also involved the abandonment of the existing wells at Altman Heights.





Madison Water District was able to complete the project without raising its customers' rates. Benefits have been felt across the region, ranging from improved water quality to more efficient administrative organization and management.

Going forward, Madison Water District hopes to proactively support other nearby water systems in order to enhance efficiency while protecting public health.

## ***Best Practices and Successful Strategies***

### **Key Players**

The Madison Water District partnership with Altman Heights and Countryside Water Association was successful, in part, due to engagement with key players and relationships built over many years of working together toward common goals in the region:

- ◆ **Local Water Services Company:** The team at Madison Water District was extremely familiar with the area since they were also providing operations and management support to a variety of other water systems in the region. When a nearby water system was facing difficulties, they became the champion to lead the partnership effort.
- ◆ **RCAP:** The team at RCAP was able to successfully support Madison Water District and its connections to Countryside Water Association and Altman Heights by serving as a neutral third-party, facilitating challenging conversations, and helping to build trust between partners. RCAP became a key team member by providing grant writing support and options for the water systems to consider so they could come to the best agreement for everyone.
- ◆ **Ohio EPA:** Ohio EPA recognized the urgency of the project due to public health concerns. They provided an interest-free loan to Madison Water District so that the team was able to take immediate action to address the current issues and connect the water systems.
- ◆ **Board Members:** The Madison Water District Board was able to work with the key players mentioned above and listen to their proposal. Ultimately, the effort was successful as the board members were able to understand and approve the proposed shift in ownership and management.
- ◆ **Local Engineering Company:** This company implemented the design and construction projects needed to connect Altman Heights and Countryside Water Association to Madison Water District. The consulting engineers were able to provide a pipe alignment that prevented conflict with existing utilities, while also providing future opportunities for partnerships and additional connections.

### **Funding**

To connect with Altman Heights and Countryside Water Association water systems, Madison Water District received an interest-free loan from Ohio EPA through the Water Supply Revolving Loan Account (WSRLA). This is a sub-program of Ohio EPA's larger Drinking Water Assistance Fund (DWAFF), which is funded by the Drinking Water State Revolving Fund (DWSRF) program. Ohio's WSRLA provides financial assistance for the planning, design, and construction of improvements to community water systems and non-profit non-community public water systems. The program offers below-market interest rates for compliance-related improvements to public

### **OHIO RCAP**

*The Ohio RCAP team was crucial to the success of the partnership. They were able to provide technical assistance and facilitate discussions as a neutral third-party partner. They supported the shared goal of protecting public health and were able to communicate this as a benefit to all parties involved. Ohio RCAP was able to investigate all alternatives to determine the best outcome. Having a neutral third-party facilitator allowed the water systems to come together to incorporate the most efficient partnership.*



### **OHIO EPA AND WSRLA**

*This project was funded with a loan from Ohio EPA's WSRLA. Ohio EPA saw the urgency of this project because of water quality concerns at Altman Heights. The loan was provided with significant principal forgiveness and a portion was interest-free because the project involved regionalization. The terms of the loan and loan amount were crucial in getting the project going.*



water systems. The program is jointly managed by the Ohio Water Development Authority and Ohio EPA's Division of Environmental and Financial Assistance and Division of Drinking and Ground Waters.

When the Madison Water District team applied for the loan, Ohio EPA immediately flagged the case based on their priority rankings protocol for different types of projects. Ohio EPA viewed the potential partnerships as urgent in order to protect public health. Prior to the loan award, Ohio EPA was required to evaluate the Madison Water District's asset management program to ensure compliance with the state's capacity development authority. As a result, Madison Water District was required to complete utility and financial management classes. These classes were offered free of charge by Ohio RCAP in online and classroom settings.

The loan provided Madison Water District with significant principal forgiveness, therefore, their customers did not incur a financial burden due to the project.

## Partnership Benefits

Water systems can achieve significant benefits through partnering. Madison Water District gained valuable knowledge and built relationships that benefitted all parties involved. Forming strong connections with neighboring water systems benefits the communities, employees, and water systems. This partnership has helped provide all water systems with:

- ◆ **Water Quality and Public Health Benefits:** The customers that were originally served by Altman Heights and Countryside Water Association were able to receive safe drinking water at no additional cost. Diminishing water quality in Altman Heights became a critical issue, motivating Ohio EPA to act quickly in approving an application for a loan to support the interconnection of Altman Heights and Countryside Water Association's water systems to Madison Water District. Through the creation of partnerships, residents within Altman Heights were able to receive water from a source without high manganese concentrations.
- ◆ **Economies of Scale:** Madison Water District is now able to treat and transport water to the 60 customers of Altman Heights and 75 service connections of Countryside Water Association more efficiently. Since there are more water systems purchasing and operating together in the region, it costs less per customer to provide services. The positive impacts of a scaled economy result in more efficient operations and less expensive water for customers.
- ◆ **TMF Capacity:** The development of partnerships between water systems can enhance the TMF capacity of those water systems. The ownership transfer of Altman Heights and Countryside Water Association increased the TMF capacity of Madison Water District with increased economies of scale and from classes on best practices for the operation and management of utilities. Strong capacity is essential to meet the requirements of the Safe Drinking Water Act (SDWA).
- ◆ **Relationship Building:** Partnerships allow for an interdisciplinary relationship to emerge that might not have otherwise developed. In the case of this partnership, various key players from across the water industry, including board members, RCAP, Ohio EPA, the local water services company, and the local engineering company, were able to come together to create a meaningful



*An operator uses a horizontal directional drill to bore the initial pilot hole and begin clearing a path for the water main.*



*A worker oversees slurry being vacuumed from the boring pit while others assemble sections of pipe to lay.*



*Tracing wiring surrounds the pit where the new pipe was laid.*

project that resulted in positive benefits, both physically and by continuing professional relationships.

## ***Learning from the Madison Water District Partnerships***

Madison Water District discovered that being proactive in identifying partners, working together, and building a network were all key elements to creating a sustainable plan for water systems within the region. Through ongoing collaboration, Madison Water District continues to create regional plans to address issues before they occur.

### **Teamwork**

Having a variety of team players who could see different aspects and suggest options for what could work best for everyone was critical. Specifically, requesting support from a third-party facilitator or technical assistance provider, can help drive the partnership forward. They can assist with conflict resolution and strive to come up with the best option for both parties. Other players, such as the water system boards, and the state primacy agency can work together to serve the greater goal of providing safe drinking water.

### **Reach Out and Ask for Help**

This partnership has demonstrated that public water systems and their communities benefit greatly when a water system reaches out and asks for assistance when they need it. These opportunities improve public confidence that their water system will take the necessary steps to protect public health.

### **Build Trust**

Without trust, a strong relationship cannot withstand the pressures of an important project. Having a reputable organization with a strong and wide network of contacts can lead to more opportunities to support nearby water systems and expand partnerships.

### **RESOURCES**

To learn more about the Ohio WSLRA, Ohio RCAP, and other water system partnerships, follow these links to online resources:

- [Ohio WSLRA](#)
- [Ohio RCAP](#)
- [EPA Water System Partnerships Website](#)



*Workers assemble fittings, gate valves, and restraining joints along the water main.*

### **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 operation 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 Madison Water District partnerships, visit EPA's Water System Partnerships website: <https://www.epa.gov/dwcapacity/water-system-partnerships>.