

# LOGAN-TODD REGIONAL WATER COMMISSION

## STRENGTH IN NUMBERS

*A Water System Partnerships Case Study*



### HIGHLIGHTS

#### Challenge Statement:

Water systems in three counties in Kentucky needed a new long-term water source because of drought, water quality concerns, and aging infrastructure.

#### Partnership Features:

Twelve water systems with varying ownership structures joined together to form the LTRWC. The LTRWC provides water from the Cumberland River in Tennessee to the participating water systems.

#### Primary Benefits:

Collaboration between the counties, water systems, and communities allowed the LTRWC to access additional funding and addressed water quality concerns at a regional scale.

#### Accomplishments:

The creation of the LTRWC provided a reliable source of drinking water which attracted new industries to the area. The innovative approach has resulted in accolades from numerous organizations.

## ***Creating the Logan-Todd Regional Water Commission***

### Background

The Logan-Todd Regional Water Commission (LTRWC), a major partnership effort involving 12 water systems across three counties, took more than 12 years to fully implement. Creation of the LTRWC and associated partnerships involved one of the biggest loans in U.S. Department of Agriculture (USDA) history and the first Drinking Water State Revolving Fund (DWSRF) loan in Kentucky. It was also the first regional water treatment plant in the state of Kentucky. The partnership allowed the water systems to access appropriate funding to ensure that customers were provided with safe and affordable drinking water, consistent service, and that the region could prosper from new economic growth opportunities.

The LTRWC includes water systems from across three Kentucky counties: Todd County, Logan County, and Christian County. The water systems were predominantly small, each serving between 300 and 3,000 customers. They also varied in ownership structures including municipally-owned water systems with their own water treatment plants, water districts that purchased finished water, and a privately-owned water system.

The 12 water systems were using source water from springs as well as some lakes and rivers which were all prone to drought. In 1995 the 11 founding water systems joined

together, with the 12<sup>th</sup> partner, Oak Grove, joining in 1999. The LTRWC was designed to take water from the Cumberland River in Tennessee (for which a permit was necessary because the intake was across state lines), and to distribute the water to the communities back in Kentucky.

### Critical Drivers

The LTRWC was formed due to these critical drivers:

- ◆ **Drought:** The drought in 1988 impacted all the water systems involved leading to source water shortages.
- ◆ **Economic Development Impacts:** New businesses were unable to locate in the area because of the inadequate potable water supplies.
- ◆ **Aging Infrastructure:** Many of the water systems were unable to obtain adequate funding to upgrade their water system's aging infrastructure.
- ◆ **Concerns with Source Water Quality:** Some sources contained nematodes and *Cryptosporidium*, raising concerns about water quality.

## 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 to identify opportunities to leverage benefits that would be difficult to achieve independently.

The creation of the LTRWC is an example of a joint power agency partnership. Prior to the creation of the LTRWC, individual water systems treated or purchased water and distributed water to communities. When faced with source water, water quality, and infrastructure challenges, they needed to assess alternative ways to provide safe drinking water to their customers. The solution was to create a new entity to provide water for all 12 water systems.

## Building Blocks of Partnership

The drought in **1988** prompted the City of Russellville and surrounding communities to start looking for new water sources.

By **1991**, the Logan County Water Advisory Group was formed as a committee of the Logan County Chamber of Commerce. The goal of this organization was to determine the best way to meet the long-term water needs of Logan County.

In the summer of **1995**, the LTRWC was formed by the Logan County fiscal court. The 11 participating water systems in Logan and Todd counties appointed representatives to the LTRWC board.

In **1996** an engineering study was completed that addressed the long-term water needs of the two counties. The study identified the need for a new water source for the region, in order for the water systems to maintain an adequate supply in the future. The study identified several short-term and

### 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 operations 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, and managerially.



*One of the communities' original water sources.*

long-term actions to enhance water availability among existing water systems, as well as long-term goals to address the source water issue.

In **1998**, several potential funding agencies were unwilling to provide financial support for the intermediate options since they did not resolve the underlying water quality and quantity problems. LTRWC would have to build the entire project at once if it was to be successful. By the end of **1998**, all 11 water systems had agreed to water purchase contracts with the LTRWC, and the project was poised to become a reality.

In January of **1999**, Governor Patton provided a \$2M grant to start the project planning and design. In mid-**1999**, Oak Grove joined as the 12<sup>th</sup> member of the LTRWC.

By **mid-2001**, the design work finished, and 17 construction contracts were awarded totaling over \$60M for construction of the project.

A formal grand opening was held on May 27, **2003** at the new regional water treatment plant. By the end of the summer of **2003**, all 12 water systems were fully involved, and the regional water system was operational.

### EXPANDING OPERATIONS SINCE 2003

In 2008, several of the LTRWC water systems partnered to secure over \$2M in grant funding for infrastructure improvements.

In 2016, the City of Springfield, Tennessee became the 13<sup>th</sup> member, adding over 12,000 households served by the LTRWC.

In 2018, construction began on the 99,000 linear foot interconnection from the Guthrie, Tennessee water treatment plant to the City of Springfield, Tennessee.

*The LTRWC partnership has remained strong for over 25 years.*

## Best Practices and Successful Strategies

The LTRWC was a success due to the involvement of water system and state partners, the availability of necessary funding, and the collaborative approaches taken to address the water systems' shared concerns.

### Key Players

- ◆ The water systems (public and private) who joined the LTRWC worked collaboratively to address shared challenges.
- ◆ Governor Patton who strongly supported partnerships and water system resiliency pushed water systems to join the LTRWC.
- ◆ USDA provided funding.
- ◆ Kentucky's DWSRF provided funding.

Drought prompts water systems to consider alternative sources.

**1988**

**1991**

Logan County Water Advisory Group is formed.

LTRWC is formed by the Logan County fiscal court.

**1995**

**1996**

Engineering study completed. A new water source is needed.

Logan-Todd denied funding. 11 water systems in Logan-Todd agree to buy water from the LTRWC.

**1998**

**1999**

\$2M grant provided for source water project. Oak Grove joins the LTRWC.

Completion of the design for the source water project.

**2001**

**2003**

Formal grand opening of the new water plant with all water systems online.

## Funding

The total project cost of the regional water system project was about \$77M. USDA provided a \$49.8M loan, one of the largest in USDA history, to LTRWC to support infrastructure development and improvement. The Kentucky DWSRF also provided the state's first DWSRF loan totaling \$10.4M. Kentucky Infrastructure Authority, Department of Housing and Urban Development's Community Development Block Grant Program, and the state all provided grants to the LTRWC.

## Outreach & Gaining Buy-In

Clear communication among the water system partners helped them work together to avoid competition and secure funding that would have been inaccessible without such partnership. Explaining the partnership process at the beginning, going door-to-door to ensure customers understood the project, and partnering with the local media helped the LTRWC gain and maintain buy-in from the public. Community outreach sought to minimize historic rivalries, convey the idea that no community was better than another, and communicate that the project benefits, while different for each community, would be good for all. Holding public meetings and focusing on shared challenges helped gain buy-in from water systems as well as the public.

## Partnership Benefits

- ◆ **Source Water Improvement:** The region was facing a source water challenge with many sources impacted by drought conditions and others in need of significant infrastructure repairs. Creating the LTRWC and working in unison allowed the water systems to access appropriate funding to ensure that customers from all water systems who joined the LTRWC could have access to safe and affordable drinking water. The regionalization project focused on the water system's shared challenges and community goals to provide safe drinking water to current and potential residents of the region.
- ◆ **Economic Development Opportunities:** The LTRWC brought new businesses and industries into the area including Hovey Electric, Lake Painting, Refine Tile, MHM Metal, and many more. To coordinate projects and fund the water systems, it was vital for funding authorities and local and state government officials to understand the economic benefits the LTRWC would provide.
- ◆ **Good Neighbors and Resilient Utilities:** Taking a collaborative approach limited competition between communities and allowed elected officials from multiple jurisdictions to seek funding in unison for a single water treatment plant. In 2008, several of the water system partners required funding to upgrade infrastructure components including water mains, storage tanks, and pump stations. By working on their behalf and using the LTRWC's reputation for partnering, they secured over \$2M in grant funding for these infrastructure improvements that would have otherwise been unobtainable without the regional partnership.

The success of the regional project has garnered nation-wide recognition for the water systems involved and the LTRWC itself.

## TAILORED OUTREACH

The LTRWC utilized tailored communications tactics to engage water system partners, community members, and funders using the following approach:

- 1) Find a common goal.
- 2) Work together to avoid competition and secure more funding.
- 3) Communicate needs to customers, by explaining the process at the beginning, going door-to-door, and partnering with the local media.
- 4) Clarify that benefits will be different for each community involved in a regionalization project – but that every community will see enough benefit to justify their participation.



*Treatment plant in Guthrie, KY that sells water to the LTRWC water systems.*

## Learning from the LTRWC Partnership

There is a lot to be learned from the creation, expansion, and preservation of the LTRWC. Regions facing similar challenges that are looking to engage in partnerships should consider what worked well for the LTRWC, summarized in the following steps:

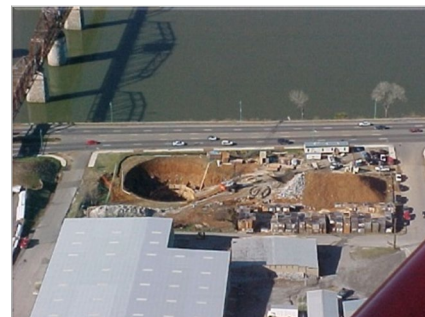
- ◆ Find a state or local representative who will support partnerships and regional water systems.
- ◆ Establish a regular meeting time for stakeholders to discuss progress.
- ◆ Include stakeholders (funders, community members, and water systems) from the beginning.
- ◆ Address issues of unfairness and rivalry to bring communities together.
- ◆ Be open about the limitations of each community.
- ◆ Be mindful that partnerships are not about losing local water systems, but rather gaining reliable potable water supply for the future of all communities involved.

Establishing a common goal, identifying and engaging stakeholders early on, prioritizing communication, and obtaining funding, all promote collaboration which develops a strong foundation for a partnership.

### 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 Logan-Todd Regional Water Commission, visit EPA's Water System Partnerships website: <https://www.epa.gov/dwcapacity/water-system-partnerships>.



*Pump station and construction of the intake on the Cumberland River in Clarksville, TN.*

### RESOURCES

To learn more about the LTRWC and gather information about other water system partnerships, follow these links to online resources:

- [EPA Water System Partnerships Website](#)
- LTRWC [2012 EPA Webinar](#)
- Additional water system details about the [LTRWC](#)