

# Municipality Lifts Boil Water Order Using Mobile Membrane Solution



## The challenge

In November 2010, the Wellsboro Municipal Authority's slow sand filtration drinking water plant began experiencing high turbidity and algae events due to elevated levels in their reservoir. As a result, their citizens received emergency notices to boil their water before use. The boil water advisory not only impacted residents' daily lives, from brushing teeth to preparing food, but it also required business owners to shut down soda fountain dispensers, ice machines, and coffee makers.

## The solution

Upon successful completion of a pilot test, the Aria FAST™ mobile water treatment system from Aria Filtra™ was selected. The system's robust hollow-fiber membrane filtration modules provided high-quality water, easily bringing the municipality into compliance despite high-turbidity events.

With a capacity of one million gallons per day, the modular unit offered a compact footprint that allowed for easy installation. The full containerized system required minimal infrastructure, consisting of a concrete pad, a portable canopy enclosure, electrical power connection, and inlet and waste discharge piping. The system includes a standalone programmable logic controller (PLC) system and supervisory control and data acquisition for process control and plant data collection. Signals from the preexisting plant process instrumentation are connected to the unit's PLC. This allows for the trending and storage of data for both historical reference and regulatory reporting requirements. As an additional safety measurement, an alarm management system was incorporated into the control system to automatically call



*"I was impressed with the engineering that Pall\* completed. The collaboration between our engineers and Pall's with the prebuilt enclosure and supporting elements was spot on, for when the mobile unit arrived, everything fit perfectly."*

Daniel Strausser, borough manager, Borough of Wellsboro

\*Aria Filtra, formerly Pall Water, was a division of Pall Corporation when this quote was provided.

specified contacts in the event of a critical alarm. Wellsboro is now in their second year of utilizing the Aria FAST system to augment their summer water demand.

## The results

With the installation of the Aria FAST mobile water treatment system, in conjunction with the preexisting slow sand filters, the Wellsboro Municipal Authority was able to meet the Department of Environmental Protection's drinking water requirements, lift their boil water order, and supply citizens and businesses with safe, quality drinking water.

In addition to providing high-quality water, the Authority was able to reduce the cleaning frequency of their conventional technology, significantly reducing maintenance costs. This solution minimizes capital expenditure and gives the Wellsboro Municipal Authority the flexibility for possible future changes to the source water.

## The benefits

Benefits of the Aria FAST mobile water treatment system include:

- **Robust membrane filtration to easily handle high-turbidity events**
- **Fully containerized, compact footprint, minimizing installation time and costs**
- **Self-sufficient system that requires minimal operator intervention**

- **Reduced maintenance cost of existing assets**
- **Remote access for process review and quick response time on system alarms**
- **Access to real-time and historical data for analysis of plant operation and assistance in creating regulatory reports**

### **Aria FAST mobile water treatment solutions provide water on demand, when and where you need it most.**

- Rapid deployment
- Easy installation
- Robust design
- Temporary or long-term solutions



+1 (866) 475-0115

AriaFiltrInfo@  
TrojanTechnologies.com

AriaFiltr.com

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