

ARSENIC IN DRINKING WATER COMPLIANCE SUCCESS STORIES

Cedar Woods, NC: System Purchase by Another Public Water System

Case Study Contact Information

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A private utility firm agreed to purchase the Cedar Woods, NC water system and install 3,000 feet of mains to connect it with a neighboring water system with low-arsenic source water.

Lessons Learned

To address the high arsenic levels in the source of supply for the Cedar Woods, North Carolina water system, the system was purchased by a large private utility and connected with the nearby Hickory water system, and the existing well was abandoned. Interconnection with nearby viable water systems is a good option for small water systems that lack the financial, technical, and managerial capacity to find a new source or install treatment for arsenic removal.

System Information

Cedar Woods is a small community water system serving approximately 117 people in Alexander County, North Carolina. The system consisted of one chlorinated ground water well. The well's arsenic levels (after chlorination) averaged 16-18 ppb.

Background

In 2002, the state Department of Environment and Natural Resources' Public Water Supply Section began requiring Cedar Woods to provide public notice to customers in advance of the new arsenic standard coming into effect. After receiving repeated health

warnings about arsenic in drinking water, many Cedar Woods customers started purchasing bottled water as an interim measure. The state continued to send notices to the system requesting action to ensure that the system would meet the new standard. However, the system owner was not responsive to state requests and was not financially able to install treatment or purchase the additional land that would be required to drill a new well. Ultimately, the state sent an Administrative Order to the system owner setting a deadline of January 23, 2006 to permanently reduce the arsenic levels below the revised maximum contaminant level. This Order prompted the system owner to relinquish ownership of the system.

Compliance Strategy

The North Carolina Public Water Supply Section (PWSS) informed the Utilities Commission that Cedar Woods was considered a distressed water system that did not have the technical, managerial, or financial capacity to make the improvements necessary to comply with the new arsenic standard.

The Utilities Commission had previously established a financial incentive arrangement for Heater-Aqua North Carolina (a private utility firm that owns approximately 725 systems across the state) whereby the company is eligible for recovery of costs incurred to help distressed utilities address water quality problems. The Commission identified Heater-Aqua North Carolina as a potential willing investor to assume control of Cedar Woods.

In the spring of 2005, the PWSS initiated contact with Heater-Aqua North Carolina Utilities and met with Heater-Aqua representatives and the Cedar Woods system owner to discuss possible interconnection with the nearby Hickory system and purchasing options. The Hickory water system is a large municipal system (treatment capacity is approximately 34 MGD) using a surface water supply. Heater-Aqua agreed to purchase the Cedar Woods system and interconnect it with the Hickory water system. To interconnect the systems, approximately 3,000 feet of mains were installed at a cost of approximately \$65,000. Heater-Aqua arranged to purchase water from Hickory and sell it to their Cedar Woods customers. A master meter was installed at the point where the interconnection ties into the Cedar Woods system.

Cedar Woods has been receiving water from Hickory since the spring of 2006. The system has never had any detectable amounts of arsenic in its treated water. While rates are now significantly higher (up from approximately \$19 per month to \$35 per month), the Cedar Woods customers understand that the water system's compliance options were limited and expensive. Most importantly, they are now receiving water that complies with the arsenic standard.