The City of Elkins lies in the area known as “The Heart of West Virginia.” Tucked between the Continental Divide and Seneca Rocks, Elkins is surrounded by beautiful landscapes and the breathtaking scenery of the West Virginia mountains. The town proper is home to approximately 7,100 residents and is serviced by the City of Elkins Water Distribution System.

The same rugged, mountainous terrain that draws vacationers to Elkins and the surrounding area has proven to be a challenge for the city’s water service providers. According to Rick Smith, Supervisor of the Water Distribution System, a manual meter reading system combined with inherent travel issues and inclement weather translated into nearly two weeks of read time to gather data from the city’s 4,000 water meters. The system had one employee dedicated to meter reading, but often had to add three or four others to meet their scheduled deadlines.

For billing purposes, the water system of Elkins was divided into thirds, and 1/3 of the town was billed each month. Maintaining this billing schedule was tough, but the manual reading approach eliminated the possibility of any other schedule.

“We talked about going to a monthly billing system for the entire town, but that would have cost us,” Smith said. “We’d need more employees and more equipment with the manual read system.”

Adding to the challenges the system faced was its existing equipment. Rather than having one uniform system, Elkins was using a variety of different meters to service its customers. “Whatever we could get cheapest at the time,” Smith said.

Realizing that there had to be a more efficient way, the city of Elkins began looking into new meter reading systems. A visit from Neptune Territory Manager Mitch Elliott set them on the path to automatic reading technology, and a 2003 visit to Neptune’s Tallassee, Alabama facility helped confirm the decision.

“No members of our city council make up our water committee,” Smith said. “One of the members went with us to Tallassee and was impressed with what he saw.”

While Smith desired at the very least to bring in Neptune’s ProRead system, the committee members voted to go one step further and implement Neptune’s advanced solid state encoder register called the E-Coder™. They began a complete changeout of the system, installing 4,000 pit units that are read with the MRX920 mobile unit. The data is currently being processed with the EZRoute meter reading software system.

The changeover began in September 2004, with the installations implemented by Vanguard Utility Services out of Kentucky. Vanguard was under a strict timeline to have as many of these units installed before the first snowfall as possible, and by mid-December they had completed 95% of the installation before the first snowflake hit the ground. By February 2005 the entire Neptune system was in place – and already making a big difference for the utility.
The biggest impact thus far has been on reading time, which the city has been able to cut dramatically with the new automatic reading system.

“Now we can read our meters in less than two hours, and drive a total of 43 miles to do so,” Smith said. “That’s on a bad day – most of the time it can be done in an hour and a half. There are whole sections of town I don’t have to drive through now, because the system is reading meters up to four blocks away. I can make a circle around some areas and read everything in it.”

Smith said the conversion has also allowed them to take a more proactive stance on billing problems and other issues that may arise.

“We’ve already had situations where the system has alerted us with high readings and we were able to let customers know they have a leak,” he said. “They are then able to find the leak and have it repaired. In summer months, people watering yards and washing cars might account for extra usage, but now we know when we have an area we need to check – we can pinpoint it through the E-Coder’s reports.”

Without the burden of two weeks’ worth of reading time, Smith is now able to allocate more manpower to other areas of the utility, such as maintenance and customer service. It has also meant fewer trips to meters that have already been read to address high billing complaints.

“Since this system has been installed, we’ve only had to test two meters with the customer present to prove the readings were correct – and they were,” Smith said.

Achieving a changeover as quickly and successfully as Elkins isn’t easy. According to Charles Dye, meter systems team leader for HD Supply Waterworks, the Neptune distributor supplying Elkins, the success in Elkins was the product of plenty of teamwork and dedication from the municipality to the distributor to the meter installer. John Neel, meter and systems salesman for HD Supply Waterworks, monitored this project from start to finish and was very instrumental in making sure the project was a success.

“Rick and his team took a very proactive approach to providing service to the Town. The thoroughness of their decision-making process is unbelievable,” Dye said.

“There have been very few problems for us to address,” Smith said. “The installers didn’t have to wait on materials – they had plenty to work with right from the start.”

With its conversion to Neptune’s ARB® Utility Management Systems®, the City of Elkins Water Distribution System has positioned itself as an efficient, forward-thinking utility, a move that has brought overwhelmingly positive feedback and, most importantly, results.