

## **Addressing Potable Water Needs**

**By Terri Couture, Charlotte County Utilities Director**

In April 2013, Charlotte County Utilities (CCU) presented to the Board of County Commissioners an overview of the master plans for potable water, wastewater and reclaimed water at a public workshop. In that presentation, staff shared the current state of the utilities, as well as plans for meeting future growth and development while replacing aging infrastructure in a systematic and timely manner that is both economical and efficient.

In order to help address the Board of County Commissioner's focus on water resources, for the past few years CCU has been evaluating the pressures and flows to and from its potable water storage and booster stations and transmission mains. The goal is to ensure water is efficiently being stored and pumped throughout the system and getting to each customer's home or business when needed. Some adjustments and rehabilitation work has been accomplished in the routing of the water flow and in the use of the storage and booster stations. This has resulted in a decrease in the amount of time the water is stored idly in the system or recycled in the system while waiting for customer demand, as well as a decrease in the amount of chemicals and electricity used to keep the water fresh as it is being pumped throughout the system. This analysis has proven to be a valuable tool for CCU in the delivery of quality potable water services to our existing customers and allowed CCU to plan for future customers as well.

A further water system improvement of adding two separate five million gallon elevated water storage tanks within Central County has been identified as vital for stabilizing pressures and flows during interruptions of water service caused by line breaks and equipment or power outages, including those at the Peace River facility. Currently, CCU only has four ground water storage tanks, with a total storage capacity of 10 million gallons. By adding two large elevated water tanks, the number of times CCU would need to issue a precautionary boil water notice due to a water line break, power outage or equipment failure would diminish, thereby improving reliability of water services to residences and businesses. Another benefit of this enhancement would be cost and energy savings from using gravity, instead of pumps, to force the stored water in the elevated tank at high speed and pressure to customers miles away from the tank.

CCU has also been analyzing the water resource needs in south and east Charlotte County. While the Burnt Store Water Treatment Plant (WTP) currently serves the county area south of Punta Gorda to the Lee County line, it is a stand-alone plant with no interconnection to any other facility for emergency back-up supply. A new transmission pipeline interconnection with the City of Punta Gorda's Water Treatment Plant has been identified as a cost-effective solution to the dilemma, enabling CCU and the city to shift water to and from each other and share water resources as needed. When the county develops the Babcock wellfields, the wellfields could be interconnected to the city and to Burnt Store, adding additional alternative water resources to the area and allowing east county areas to further develop commercially using public water supply. Since the city is already connected on the west side to central Charlotte County across the Peace River, a looped system would be complete.

These are just two of the many future capital projects that CCU will be evaluating for potential funding opportunities. The evaluation of this critical resource will continue, with a focus of providing our customers with high-quality water utility services in a conservative, efficient and effective manner that protects and preserves the environment for future generations.