

Public Wholesale District No. 27 Moving Towards Construction

In the March 2016 issue of *The Kansas Lifeline* I wrote about how the Public Wholesale Water Supply District No. 27 located in Brown County had been formed for the purpose of serving four northeast Kansas water systems and to provide an emergency water supply for two Tribal systems. One of the members, Doniphan RWD 6, is new and is under construction. That means that as the water source for the new district, Public Wholesale No. 27 needs to move as quickly as possible. Because of the concerted drive by the district's board, consultant Bartlett & West and very supportive funding agencies of the Kansas Department of Health and Environment Public Water Supply Section and USDA Rural Development this new project was able to open bids on August 26, 2016.

Not much has changed in the development of PWWSD 27; it's still a groundwater supply system consisting of three wells, a water treatment building, an elevated water storage tank and approximately 17 miles of 10-inch and 8-inch PVC transmission line. Phase 1 will provide the water supply to Doniphan RWD 6 which is in construction as well as to Brown RWD 2, and to the cities of Robinson and Powhattan which are already

supplied by Brown RWD 2. The tribal members – the Iowa Tribe and the Sac and Fox Nation – and White Cloud and Powhattan will be provided water supply through a second phase of construction.

Water from the groundwater supply will be pumped directly into the the district's elevated storage tank located near the intersection of Mulberry Road and 270th Street east of Hiawatha, Kan. Brown RWD 2 will continue to utilize its existing booster pump station to provide water to that system's elevated storage tank in Powhattan, which will supply water to the city of Powhattan and the city of Robinson by gravity. Improvements to the metering points for Powhattan and Robinson will be required in order to incorporate data to the PWWSD 27 telemetry system. The PWWSD 27 elevated storage tank will be able to provide water to Doniphan RWD 6 and the two tribal entities by gravity. The proposed submersible pumps in the wells will be sized to accommodate pumping directly to Doniphan RWD 6 for the scenario of extreme usage, or if water demand increases drastically in their new system. The new elevated storage tank for the PWWSD 27 will be sized for 125,000 gallons of capacity.

The district's new wells will provide 650 gpm. The addition of a third well site will allow the wells to be sized for 300 gpm, which will reduce the horsepower requirements for the well motors. This will result in substantial

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savings in extending electrical service to the well site. The groundwater supply will, at this time only require chlorine disinfection to meet EPA drinking water standards.

All proposed improvements will be made on PWWSD 27-owned property which includes 4.76 acres for the treatment plant and well sites and for the 125,000-gallon elevated storage tank site. According to funding documents, the project has the capability of impacting an area of approximately 630 square miles. Currently, the existing water suppliers in this area support a population of approximately 7,650 customers.

Reasons for the development

In 2010, Brown RWD 2 was approached by a group of individuals in northeastern Brown County wanting to join the water district. Brown RWD 2 was established in the mid-90s. At that time and into the present Brown RWD 2 contends with the increased costs of water and high nitrates with the present water supply purchased from the city of Hiawatha. Based on the water purchase contract, Brown RWD 2 could not serve applicants beyond the original boundaries without city permission. Due to the city being under KDHE compliance for having high nitrates above 10.0 mg/L, the



At immediate left, USDA Rural Development Area Specialist Dan Fischer reviews the PWWSD 27 Letter of Conditions for funding with board members of Public Wholesale District No. 27. Board members shown are David Overdick, Secretary (Brown RWD 2); Lyle Chadwell, city of Powhattan; Marsha Ganstrom, Treasurer, city of Robinson; Paul Rush, Vice-Chairman, Doniphan RWD 6; and, Leroy Puvogel, Chairman, Brown RWD 2.

request was not approved by the city. Brown RWD 2 however remained committed to providing water to the applicants as well as finding a solution to decrease the cost of water for the entire system. Thus began the search for their own water supply. After four

years of study, and drilling test holes, the district was fortunate enough to find three very dependable wells in northeastern Brown County. Within months of Brown RWD 2 finding their water supply it was determined that the newly developing Doniphan RWD 6

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had lost their groundwater well option due to high nitrates. The boards for Brown RWD 2 and Doniphan RWD 6 met and it was from those discussions that PWWSD 27 began.

Present costs of water

All of the users being supplied by PWWSD 27 should see at \$15 to \$17 decrease in the monthly cost to purchase 5,000 gallons of water. Brown RWD 2 presently purchases water from the city of Hiawatha as a cost of \$5.51 per 1,000 gallons and a \$492.08 monthly meter charge. Brown RWD 2 sells to their customers at a rate of \$5.65 per 1,000 gallons. The city of Robinson charges \$27.88 for 5,000 gallons; the city of Powhattan charges \$50 for 5,000 gallons. The PWWSD 27 cost of water will be a substantial cost savings for Brown RWD 2. The RWD for many years was in a contract to purchase water from the city of Hiawatha for a \$1.24 per 1,000 but after several lawsuits the contract has been broken and the RWD now pays the same rate as the city's residential customers.

The preliminary cost of water to the member entities of PWWSD that was

calculated in the Preliminary Engineer Report was \$2.50 per 1,000 gallons. The \$2.50 per 1,000 gallons included the estimated operation and maintenance costs as well as the cost of the monthly debt service requirements. At this time, with the funding and actual bid construction cost that has been issued to the PWWSD the cost of water has been recalculated to \$2.10 per 1,000 gallons. This cost includes the estimated O & M cost of operation as well as the cost of the monthly debt service requirements. The adjustment in cost is due mainly to the decrease in the interest rate and the increased amount of grant funds that are being provided to the PWWSD versus the estimated numbers that were presented in the Preliminary Engineering Report.

USDA Rural Development will provide a loan of \$2,497,000 and proposed grant of \$1,054,500. The Kansas Public Water Supply Loan Fund administered through KDHE will contribute an anticipated \$1,184,000 principal forgiveness.

The PWWSD 27 bid opening was held on August 26 at the Brown

RWD 2 office in Powhattan. On August 29, the PWWSD 27 board approved the following low bids for the water project:

- Estimated project costs: \$4,735,500
- MConn LLC, Wathena, KS: construction of the transmission pipeline and treatment building at \$2,274,675
- Sargent Drilling, Salina, KS: construction of three water supply wells at \$226,572
- Phoenix Fabricators and Erectors, Inc., Indianapolis, IN: construction of a 125,000-gallon legged style elevated storage tank at \$599,879.

Rita has extensive municipal experience with the city of Troy, KS for eleven years. She was a certified EMT and served as the Ambulance Director for two years and supervised the volunteer staff. Rita also worked on or completed most



water and wastewater utility reporting requirements. Her focus at KRWA is to provide assistance with applications for funding for cities and rural water districts.

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