

# Water Supply Improvements for Communities in Northeast Kansas

Northeast Kansas is generally blessed with adequate rainfall to grow good crops. Brown and Doniphan counties are considered among the highest producing areas of the state for dryland farming. But along with good soil types for dryland farming, generally adequate rainfall, farmers have inputs of substantial amounts of nitrogen fertilizer. And therein lies the main contributor to

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problems facing numerous public water supplies in the area.

Recently, the Public Wholesale Water Supply District (PWWSD) No. 27 was incorporated to address water quality and quantity concerns. This new entity was created through the cooperation of local water supply systems including Brown RWD No. 2, Doniphan RWD 6, city of Robinson, city of Powhattan, Iowa Tribe of Kansas & Nebraska, and the Sac & Fox Nation of Missouri in Kansas and Nebraska.

PWWSD No. 27 was formed due to an overarching concern of high nitrate concentration in the groundwater supply in the area. Brown RWD No. 2 was awarded a grant through the Kansas Department of Health and Environment to sponsor a regional public water supply study. The five local water supply entities previously mentioned responded with interest to the idea of working together to solve their common problem which is elevated levels of nitrate in their water supply or to have a secondary source.

Presently, Brown RWD 2 purchases water produced by the city of Hiawatha. Hiawatha's Consumer Confidence Report (water quality report) for 2014, indicates nitrate in the drinking water at 10 parts per million (ppm) to 11 ppm as sampled on 12/1/2014. The Safe Drinking Water



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The board of directors and consultants for Public Wholesale Water Supply District No. 27 gathered for this photo following a recent meeting. Those shown in the front row are Paul Rush representing Doniphan RWD 6 and is Vice-Chairman; Leroy Puvogel, Brown County RWD 2 is Chairman; Marsha Ganstrom, city of Robinson is Treasurer and Alan Kelley of the Iowa Tribe of Kansas and Missouri. The back row includes Adam Olson of Bartlett & West, Inc.; David Overdick, Brown RWD 2 is Secretary; Lyle Chadwell, city of Powhattan; and, Bryan Ford, Bartlett & West, Inc.

Act regulations have set the Maximum Contaminant Level for nitrate to be 10 ppm or parts per million. Hiawatha is considering the construction of a nitrate removal plant. With the loss of sales to Brown RWD 2, reduced pumping may have a beneficial effect on the water quality in Hiawatha as it is typically understood that higher rates of pumping draw more water from upper layers of the aquifer and it is that water that generally has higher nitrate levels.

### Purpose of the PWWSD

The Public Wholesale Water Supply District Act enables public water supply systems to cooperate for the purpose of providing wholesale water to the participating entities. The function of a PWWSD is to secure a single source of water on a scale large enough for the participating entities, and to sell water at wholesale to the participating entities. The entities share in the costs to construct, produce, and maintain the facilities of the PWWSD, taking full advantage in the economy of scale to minimize the financial impact to each individual entity. It is the mission of PWWSD 27 to provide quality water to its member entities at the lowest cost possible.

The governing body of PWWSD 27 is a board of directors comprised of one member from each participating entity, with one seat rotating among the entities.

PWWSD 27 has explored for and secured a quality groundwater supply

capable of supporting the water usage of the member entities. The district has contracted with an engineering firm to complete the design of the supply system. The PWWSD board is encouraging other interested public water suppliers in the region to reach out and learn about the function of the PWWSD and how it could be beneficial to those communities and their patrons.

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The district has applied for a proposed loan in an amount not to exceed \$4.4 million to be taken from the Kansas Public Water Supply Loan Fund administered by the Kansas Department of Health and Environment with additional funding to also be acquired from the USDA Rural Development. The district does not anticipate installation of a water treatment plant at this time because the water quality tests substantially below the required 10 ppm standard for nitrate.

### Doniphan RWD 6 bids come in low

After 11 years of organization efforts, which included some set-backs in locating a water supply, Doniphan Rural Water District No. 6 recently advertised their new project for construction. The bid opening was held Friday, January 8 at the Highland Community Center. Eight contractors, from Missouri, Minnesota and Kansas, submitted bids. Contractors considered the base bid with nine alternate bids. The engineer's probable costs estimate was \$3,856,467 for the base bid with

the nine alternates for a total estimated cost of \$4,356,973.00. Engemann Drainage, Troy, Kan. was the apparent low bid with a base bid of \$3,157,011.50 and with the nine alternates, for a total bid of \$3,573,357.30.

Doniphan RWD No. 6 had intended to construct their own wells but from the time that the exploratory wells were installed to the period when the district planned to proceed, the nitrate level in the groundwater at the location increased substantially. The amount of increase is perplexing, according to Stuart Porter, project engineer with Schwab - Eaton, P. A., Manhattan, Kan. As a result of the newer water quality tests, the funding agencies withdrew support for that project, which in turn forced the RWD 6 board to locate an alternate supply. They decided on joining with Brown RWD 2.

Doniphan RWD 6 will be installing 115 miles of pipeline ranging in size from 2-inch to 10-inch. The project includes 204 rural patrons. It will also provide service to the present customers of Doniphan RWD 1 at Leona; that project will in effect be

acquired by Doniphan RWD 6. The project also includes a 12-foot x 130-foot standpipe.

Funding for Doniphan RWD 6 is being provided through a loan of \$3,163,000 and a grant of \$2,629,000 from USDA Rural Development.

### USDA interest rates at all time low

USDA Rural Development recently announced interest rates for Water and Environmental Programs for the first

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quarter of 2016. From January 1 to March 31, 2016, the interest rates will be reduced. The rates are as follows: Market 3.125%, Intermediate 2.5%, Poverty 1.875%. A year ago the same time period showed interest rates as Market 3.750%, Intermediate 3.00% and the Poverty Rate at 2.250%.

**Attend Conference; attend, learn more**

I encourage readers and others to attend the 2016 Conference & Exhibition sponsored by Kansas Rural Water Association. All funding agencies – USDA Rural Development, Kansas Department of Health & Environment, Kansas Department of Commerce, and the Kansas Rural Water Finance Authority will be participating.

Do not miss the noon luncheon address on Wednesday, 3/30, by Kent Evans, Director for USDA Rural Development Water Programs, Washington, D.C. Kent served at USDA in Kansas from April 2011 to October 2013. It is great to have him as a special guest at the KRWA 2016 conference.

Also watch for these preconference and sessions:

- ◆ Engineers’ Forum for Water and Wastewater and Community Facilities, Tuesday, 3/29: 10 a.m. to 3:15 p.m.
- ◆ Fixing Your User Rates, Tuesday, 3/29, 10 a.m. to 4 p.m.
- ◆ Community Development Block Grants, Wednesday, 3/30, 10:45 a.m.
- ◆ Water and Wastewater Funding Through KDHE, Wednesday, 3/30, 1:30 p.m.
- ◆ USDA Funding For Community Projects, Wednesday, 3/30, 4 p.m.

All the agencies will also have booth spaces where representatives will be pleased to visit about potential and present projects and funding needs. Here are the booth numbers for the agencies:

- ◆ Kansas Department of Commerce: #157
- ◆ Kansas Department of Health & Environment: #103
- ◆ Kansas Rural Water Finance Authority: #211 (with Ranson Financial)

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◆ USDA Rural Development: #95  
You can see all 345 booth spaces online at [www.krwa.net/conference/conference.shtml](http://www.krwa.net/conference/conference.shtml). Search by company name or just “mouse over” and click on a booth and the information will display.

I hope you will join your peers at KRWA’s 50th Anniversary Conference, March 29 - 31 at Century II Convention Center in Wichita.

*Rita has extensive municipal experience with the city of Troy, KS for eleven years. 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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