



Washington RWD 1 Equips to Provide Future Water Supply Needs

Washington County is located south of the Kansas-Nebraska border in the northeast to north-central part of the state. U.S Highway 36, which dates back to 1926, runs east to west through the county. In fact, Highway 36 runs across all of the northern counties of Kansas. Highway 36 is about 1,414 miles long and extends from eastern Ohio to Rocky Mountain National Park in Colorado. Straddling this highway are some of the heaviest usage rural water districts in Kansas, Washington RWD 1 being among them. This article discusses the continued improvements this RWD is making.

Washington County is primarily an agricultural county growing wheat, milo, corn, soybeans, alfalfa, and prairie hay. There are also some fields of sunflowers, the state flower, grown within the county. In addition, within the thirty square-mile boundary of the county, a number of dairies and cow-calf herds support family farms. The Washington County Tourism Group Web site notes that “you won’t find one fast food franchise in our county, but you will find home-cooked meals at cozy little country cafes. We don’t even have a stoplight in our county”.

Washington County, like so much of north-central Kansas, was plagued with water supply issues. Residents had various problems with their private wells, in some cases with quality and others with quantity. As a result, there are three rural water districts that serve various parts of the county. Washington RWD 1 started test drilling for water in 1969 and began producing water in 1975. There were two well fields developed at the time for the RWD. One well field is known as the Lanham Well Field and the other is known as the Washington Well Field. Then, in 1982 the district extended the system and added a well field and about 150 new customers near Marysville. Today, Washington RWD 1 serves a large area in the northeast part of Washington County and an area in northwest Marshall County.



Office Manager Jacque Simoncic and Manager Darrell Schlabach discuss aspects of the present construction project.

(Left) This new 100,000-gallon storage tank was recently erected as part of an improvement project.



Washington RWD 1 presently serves about 650 connections, including wholesale water to two and individual meters in three other small towns. The system has 645 miles of pipeline. Total water produced in 2010 was just over 100 million gallons. Included as customers are the cities of Hanover and Morrowville, each supplied through a single master meter. Also included are the cities of Bremen, Hollenberg, and Herkimer. The district has taken over the distribution systems in these smaller cities. Another user of interest is the Hollenberg Pony Express Station located northeast of Hanover. The Hollenberg Station served as a way station for travelers on the Oregon and California Trails; in 1860 and 1861 it operated as a Pony Express Station. The Hollenberg Station, a State Historical Site, is the only unaltered station remaining at its original location, looking much like it did in 1857. The building and visitors center, allows visitors to experience western



Washington RWD 1 has been plagued by many problems with 1.5-inch, solvent weld PVC. The district tracks all repairs. In 2006, the district repaired 130 leaks; in 2010, the district repaired 129 leaks.

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history at this National Historic Landmark. The RWD's three well fields have provided good service since the district went into service. However, two of the well fields have caused some concern for district officials. Water tests have indicated an increase in the nitrate level in the Lanham well field. This and a declining water level in these wells is one reason for seeking another well site. Also, the Marysville wells are located northwest of the city of Marysville and are upstream of a small impoundment on the Big Blue River; that impoundment is owned by Marysville. The integrity of the impoundment is now in question and there is concern that failure of the dam could adversely affect the wells with a decrease in yield or possibly total loss of the wells as hydrologists have determined that the well field is being supplied by the water held back by the



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impoundment. For these reasons, the district embarked on the task of finding another well field. The district employed Ground Water Associates, Wichita, KS, to assist with locating a well field and the consulting firm of Schwab-Eaton PA, Manhattan, to design the improvements.

After going through the process of test drilling, a new well field was located north of Marysville, just south of the Kansas-Nebraska state line.

Everything's organized in the Washington RWD 1 shop. The district even has its own tire changing equipment.



Washington RWD 1 constructed this office and shop in 2005 at a cost of just under \$200,000.

Four wells are being developed in this area. The drill holes are 24 inches in diameter and 8-inch Certa-Lok PVC well casings are being installed. The wells vary in depth from 96 to 170 feet and each will provide about 50 gpm to the system. The well field development was contracted to Strader's Blue Valley Drilling of Pickrell, NE at a cost of \$124,954. The RWD installed the electrical to the well sites. J & N Elliott Construction of Morrowville, KS will construct a pump house for \$83,750.



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Also included in this project was a new 100,000-gallon elevated storage tank. The tank was constructed by Phoenix Fabricators, Avon, IN at a cost of \$410,658. Pipeline, consisting of 6.75 miles of 6-inch CL 200 PVC, was installed by Ditch Diggers of Salina, KS. The cost per linear foot is \$4.16 with a total contract price of \$182,944 for pipeline, crossings, valves, etc.

Darrell Schlabach, Manager, reports that water rates were increased as a result of these improvements. Water rates are as follows: Monthly Minimum of \$16.50 with no water; \$6.38 per thousand for each of the first 4,000 gallons; \$4.96 per thousand for usage from 4,000 to 8,000 gallons; \$3.49 per thousand for usage from 8,000 to 10,000 gallons; and \$3.28 per thousand in excess of 10,000 gallons.

The Kansas Rural Water Finance Authority (KRWFA) issued \$1.7 million bonds to finance this and other projects. The KRWFA is a Kansas corporation created through inter-governmental agreement in 1987, pursuant to Kansas Statutes

Annotated 12-2901. One of the primary purposes of the KRWFA is to assist in financing local government activities, including adequate water supply, service, and treatment; or sewage treatment and disposal. The financing for the project was bid; three bids were received. The low bid for the 20-year financing came in with a net interest cost of 4.353 percent. The variance between low and high bids amounted to \$84,500. While the financing through bonds will be more expensive than the Kansas Public Water Supply Loan Fund (SRF) rate, the SRF had limited or no funds available in 2010 and the district wanted to proceed with the project. For more information about the KRWFA, visit the KRWA Web site at www.krwa.net and check the link to "Technical Assistance". The district did receive a surprise when actual bids came in substantially below original estimates. This allowed sufficient funds to add a 6-inch pipeline from the Washington (south) distribution system to the Hanover (north) system. This pipeline will allow better transfer of water between

the two distribution systems and provides a more secure source of water to Hanover.

These improvements will provide a more reliable source of water to all three distribution systems as they are all interconnected.

The district is governed by a nine-member board of directors; Kenneth Crome, Marysville, is the present Chairman. Other employees at the RWD are Jeff Schlabach, Operator, and Jacque Simoncic, Office Manager. Jeff, who is a Class II Operator, has worked for the district full-time for 12 years; Jacque and her husband Richard moved to Hanover two years ago from Larned; Richard is Superintendent for USD 223. The district manages operations from its office and shop, constructed in 2005, in Hanover.

Bert Zerr is currently a consultant with KRWA. He has been with KRWA since 2005. Prior to that, Bert was a District Engineer with the KDHE in the Salina District Office for 32 years.



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