



# Water System Improvements Include Maintenance of Elevated Storage Tanks at McLouth

This 300,000-gallon tank had not been completely renovated since it was installed 1997. Utility Service Group completed the repairs and painting and the city entered into a maintenance contract for five years.

The city of McLouth, with a population of about 850, is located at the intersection of Highways 61 and 92 in northeast Kansas. Because McLouth is located approximately 30 minutes from Topeka, Lawrence, Leavenworth, and the popular shopping and business district known as the Legends near Kansas City, it is ideal for those who value small town living but also enjoy what larger communities have to offer. In fact, the following is noted on the city's website; "A Little bit of Country just outside the Big City!"

The city was named after Amos McLouth who was a surveyor in the area and was the original owner of the town site. Along with Amos, Zeno Zabriskie, a local builder was another prominent individual who was to have naming rights. The story is that Zeno and Amos flipped a coin and Amos won, allowing him to name the town.

The water supply in the city's earlier years was a spring located south of town. Actually, the spring derived its water from collector piping installed at a depth of 20 feet. As with most springs though, microorganisms including protozoan parasites such as giardia and cryptosporidium can be present. The most common treatment practiced at groundwater systems in Kansas is disinfection by chlorination. Since these parasites cannot be destroyed by chlorination, further treatment, such as filtration is required. This water supply source served the city for a number of years but when cryptosporidium was eventually found in a water sample from the spring, the city was required to upgrade the system.

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Rather than constructing a treatment plant to treat the spring water, the city decided to locate a new source. In about 1989, new wells were drilled north of town and an iron and manganese filtration plant was constructed. During the ten-year period from about 1985 to 1995, the city population increased from about 600 to 900 and the opinion was that the growth would continue. This put additional pressure on the system resulting in the need to provide even more improvements.

### First loan from State revolving loan program

In 1997, the city received the first loan from the Kansas Public Water Supply Loan Fund to make improvements to the system. These improvements included adding additional storage. A new 300,000-gallon elevated storage tank was constructed. The new tank and the existing 50,000-gallon tank provides more than adequate storage for the current population. Other improvements made at this time include a connection to Jefferson County Rural Water District No. 13.



This 50,000 gallon tank is the older small tank that was considered to be no longer needed since the city has a newer 300,000-gallon tank. Thought was given to taking it down rather than spending the money to maintain it. Local citizens though wanted to keep the tank and after some discussion, the city decided to keep the tank and had it repainted. It was last painted in 1997.



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City Clerk Kim Everley has helped the small town of McLouth gain many improvements. She was recognized by Kansas Rural Water Association in 2015 as City Clerk of the Year.



This photo shows the front of city hall in McLouth and the sign with the city's steam engine logo.

Currently the city produces an average of about one million gallons per month from the six wells located north of town and purchases an average of about 600,000 gallons per month from the rural water district. Carl Chalfant, former city administrator, noted that a local bank donated \$100,000 to get this project started. Additional funding in the amount of \$1,132,133 was secured with the loan from the state.

The elevated tanks were last painted in 1997 and were in need of attention. The question the city needed to consider though was “do we need to spend money to repair and repaint the small tank or in other words, do we need the tank?” The large tank at 300,000-gallon capacity has ample storage for the current population. However, as the city

council was considering the possibility of removing the small tank, Kim Everley, City Administrator/ Clerk, stated that the city heard from many local residents who expressed a desire to retain it. A “Save the Old Water Tower Survey” was held and of the 120 votes cast, 94 were in favor. Local residents were then invited to attend the next city council meeting to decide the outcome of the tower. At the meeting the various costs were presented as follows: Option (1) \$26,334 to remove the tank; Option (2) \$240,000 to provide complete maintenance involving removing the lead based paint and primer and repainting; and Option (3) \$65,016 to just paint the tank, encapsulating the lead based paint and primer. After hearing from constituents, and considering the fact the tank can be used as back-up when the large tank is taken out of service for maintenance, the city chose option 3. Water funds were used to pay for the work which should last up to ten years before full maintenance will be required.

Utility Service Group, Perry, Georgia, was hired to inspect, repair, and repaint the two

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The city operates a battery of wells in addition to purchasing water from Jefferson County RWD No. 13. The city treats its well water supply through this single vessel filter to remove iron and manganese.

elevated tanks. The exterior of the large tank has a painting of a steam engine, which currently serves as a logo for the city. The logo was designed by Carl Chalfant and Glen Wear, former mayor. The steam engine was chosen to honor the Steam Engine Association because the land for the tower was donated by the association. The steam engine is

also important to the city because the “McLouth Threshing Bee” is one of the longest running threshing bees in the nation, dating back to the 1950’s. The work on this tank includes exterior and interior renovation and repairs. The overall cost of the project which will be paid-out in five years and includes a five year maintenance contract totaling

\$185,375. Plans are to use water funds to pay for this project with no intention to raise customer rates as a result. Water rates will remain at \$23 for the first 1,000 gallons plus \$11.00 per thousand thereafter.

In addition to her city administrator/clerk duties, Kim also serves as the Chamber of Commerce President. She noted that the city is seeking funding from the U.S. Department of Agriculture to continue upgrading the water system. Plans are to replace about half of the distribution system and make improvements to the existing iron and manganese removal plant. These proposed improvements along with providing adequate storage and two sources of water allows the city to more effectively deal with emergencies and places the city in good position to provide for the future.

*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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