



## Water System Recent History and Rate Structure

In the early 1980's, the City of McLouth had a population of approximately 650 people. The water source was from 8 wells and Wildhorse Springs. The average production of each well was only 15 gallons per minute, for a total of 120 gal. per min. At that time production was marginal, but it did keep up with normal daily use, other than the case of a fire or a sizable water leak. Water rates at this time were around \$8.00 per month min. with a \$3.50 per thousand gallons of use over 1000 gal. By 1985, the town started showing some residential growth, which pulled a larger demand on the existing wells, and along with the extra demand came extra problems. The more water pulled from the wells the higher the iron and manganese concentration in the water became. Iron and manganese are not toxic in concentrations found in well water, but have a blackish red color that collects in water mains and can stain clothes during the laundry cycle in high enough concentrations are present. In 1987 the City Council received enough complaints about the rusty looking water and the staining of clothes, they decided something had to be done. The City also had been drilling test wells for a larger water source along with a source that might have a less concentration of iron and manganese. At this time it was decided to apply for a grant to try and solve some of the existing problem which the City did receive. The grant was utilized to develop 2 new wells after drilling 18 test wells. These two wells still only produced 25 gal. per min. each, but was the best that they found from the 18 test wells. Included in the grant was an emergency water supply hook-up with Jefferson County Rural Water District #12 (RWD #12), an iron and manganese removal treatment plant, and the replacement of the 6" cast iron water main that runs along Union St. from Alberta St. to Lake St. The City portion of this project was approximately \$100,000 which had to be paid by the water patrons of the City of McLouth. Water rates were adjusted to help pay for this project to \$15.00 per month min. with a \$4.50 per thousand gallons of water use over 1000 gal. per month.

In 1995 the City had increased in population to 1000. This sudden increase in population exceeded the capacity of the water system. On a couple of occasions the City ran out of water for a brief period of time. This raised some serious concerns with the council and public, along with the Kansas Department of Health and Environment (KDHE). The City and its Engineer at the time started looking at a possible grant again, to help address our urgent situation. With little money put away for any type of upgrade due to the past expenditures, the City had to raise water rates again to help cover the upcoming expenses. The approach of purchasing that amount of water from RWD #12 was not feasible so the City had to look to another direction. With the pressure from KDHE and a large donation from the Bank of McLouth to get something started, along with the determination by the Commerce Department that the City of McLouth did not qualify for any type of grant at that time, the City Council along with the assistance of Kansas Rural Water Association (KRWA), decided to apply for a newly developed State Revolving Fund (SRF) loan to meet the water demands. The SRF loan is EPA money given to states to be issued as low interest loans to municipalities to improve and/or bring their water and waste-water systems into compliance with current regulations and standards. One of the requirements of utilizing a SRF Loan was to project out the current growth pattern for 20 years and make sure that the growth pattern was included in the project.

In 1997, the City received the SRF loan and work began on a water connection to Jefferson County Water District #13 (RWD #13), a new 300,000 gallon water tower, water main upgrade from the

new water tower to the downtown feed, and a water main upgrade from the new tower to the old tower. This project had a total cost of 1.1 million dollars. The City at this time had to raise water rates enough to insure that the loan would be paid back with user fees. The rates were prepared with assistance from KDHE, KRWA, and the City's Engineer. They were increased to \$26.00 per month min. with a \$8.00 per thousand gallons of use over the first 1000 gal. of water.

Since the City has completed these upgrades, we have all but eliminated red water (except when flushing mains or major water main breaks, which allows old build up in old mains to let go from the inside walls). Also, a minor change in the treatment process has eliminated a small odor that the water contained due to the process.

At present the City is fighting a leak issue on the old cast iron water mains in the original part of town. These old cast iron mains are failing at the connection bell of each section of pipe (each individual section is 6 ft. long). These are creating street damage when they fail and costing the street fund an average of \$25,000 per year in repairs. The Council determined that this was taking away street funds that were needed for regularly scheduled street repairs.

In 2007, the City Council determined that it was in the City's best interest to start replacing 600-900 feet per year of these old water mains, utilizing money from the water operation fund and the Capital Improvement Fund to start saving on the street fund. They set at a spending cap of around \$25,000 per year at that time. The Council at this time was under the impression that they would try and lower the monthly minimum on the water rates by \$6.00 to \$20.00 per month min. and make ends meet.

In 2010, the City determined that it could have more water main replaced for less money by bidding out a larger project (1500-2000 ft. of main replacement) at a time and only schedule a project every two years, instead of every year. This figured out to savings of approximately \$4.50 per foot of pipe. By the end of 2010, the mains replaced are Summit St., from W. Lake St. to W. Cynthia; W. Lucy St., from Summit St. to S. Union St., E. Cynthia St., from S. Union to Cedar St., and Cedar St. from E. Cynthia St. to E. Lucy St. The City is in the current process of evaluating the current water rates as the regular expenses are exceeding the revenue, not even including the attempt to replace the old cast iron water mains.