

## FAQs Rural Water Info Meeting-April 21, 2016

### Quality of Water

- Is our current water source safe to drink?  
According to the Department of Health, the water is safe to drink, but is highly corrosive for plumbing and fixtures. Chlorine is currently injected at the water storage building to kill any micro bacteria.
- Does our current distribution system have scaling due the poor existing water supply?  
The current water source is unfiltered, meaning it contains small deposits of sand, coal and iron. This water is also high in sodium content. These 4 items are hard on meters, fixtures, appliances, and pipes.
- Due to our existing poor water supply and the potential for it to damage our pipes; will a switch to rural water improve water quality at my home?  
Yes, water from McLean Sheridan is filtered and chemically treated to modern standards set by the ND Department of Health.

### Cost

- What will the city pay MSRW for the water?  
It is **estimated** that the City of Mercer will pay \$4.30 per thousand gallons. This includes the base rate and all fees that go along with the connection.  
Below is a comparison to other communities on McLean Sheridan Rural Water:
  - Turtle Lake – \$4.43 per Thousand
  - Coleharbor - \$4.21 per Thousand
  - McClusky - \$4.43 per Thousand
- What will the city charge the citizens for the water?  
The estimated yearly cost to run the water system will be \$6,000, plus the cost of the water. Additional fee should be placed on top of the yearly cost to cover the cost of any future breaks and unforeseen maintenance to the water system. The pumps, tanks and building are considered short lived assets and will cost around \$10,000 per year (cost of replacement at the end of their life cycle). This number should also be added into the base connection rate. The anticipated debt service is estimated to be a \$600,000, 40 year loan at a 1.75% interest. The payback amount per year is estimated at \$22,000 per year.  
  
Rural Development determines the local share of the project based off of the affordability rate of the city, based on Median Household Income. Preliminary estimates indicate that the affordability rate is \$48 per user. This includes the price of water and any special assessments on the water system.
- How does the city determine the price of water charged to the citizens?  
Price of the water is determined by the cost to run, repair and replace the system, otherwise known as operations and maintenance. This includes administrative time (generating billings), fees, memberships, dues, and utilities.  
There are also items that are known as short lived assets that should be considered for replacement at the end of their lifespan. For instance, if a pump has a life span of 15 years, and costs \$15,000 to replace, the value of the pump as a short lived asset is \$1,000 per year. This is the same for tanks, buildings, control panels, etc.  
Rural Development will determine how much the City can afford to pay, and the debt service will be included as a part of water bills or special assessments.
- What will the average water bill be?  
The affordability rate for Mercer, which will be determined by Rural Development, is approximately \$48 per user. This could be the new water rate, including special assessments for debt service.

- How much increase in price can we expect per year?  
Somewhere between 0 and 3%, depending on the accuracy of the estimated operations and maintenance costs.
- What is to keep MSRW from increasing the cost of water substantially (greater than 2-3% per year)?  
The city can negotiate the contract with MSRW, however, their system also needs to provide water to Mercer and other users. If their operations and maintenance costs increase, Mercer will have to help pay for it with an increase in water fees. The City will have a contract with MSRW that will outline cost increases.
- Over the past 5 years, what has been the percentage of rate increase that MSRW users have seen?  
MSRW has not had a rate increase in 4 years.
- Who pays the electricity bill at the valve vault?  
Mercer will pay for all costs associated with the supply line from MSRW, including the valve vault.

### Supply/Volume

- Can the MSRW plant supply our needs along with the other areas it supplies?  
Yes, provided other users do not have a sudden significant demand. However, this supply is not intended to sell to rural users for farm use.
- How will a change to rural water effect the towns water pressure?  
In town pressure will be regulated by Mercer. It is estimated that static pressure will remain close to the same (roughly 40 psi) and dynamic pressure (flow pressure) will increase significantly if water mains are replaced.
- How will a change to rural water effect the towns fire protection?  
Rural water will provide adequate volume to fight a fire. There is a 100,000 gallon booster station within 1 mile of Mercer. An adequate number of hydrants will also be installed if the distribution system is upgraded.

The current system requires a second well to be activated to provide the volume necessary. This water is not treated.

- Is our current tank and supply adequate for optimal fire protection?  
No.
- What can we see in an emergency situation with MSRW?  
Adequate volume and pressure to fight a fire properly. A valve system inside the water building will allow water from MSRW to bypass Mercer's storage tank and be directed into the distribution system.

I'm guessing someone will bring up the McClusky fire from a while back, we should be prepared for this response – Mercer does not have buildings as large as the elevator, also, McClusky could have requested additional supply.

- In the event of a fire, what plans are there to use Mercer well water to fill trucks and only use MSRW only as a secondary source so the cost of the water is lower?  
The wells will be abandoned to prevent contamination to the system. If there is a fire, Mercer will pay for the extra water used, and will be measured on Mercer's bulk meter.

This also includes the cost of flushing and hydrant maintenance.

## Outages/Shortages

- How many outages have MSRW seen that have lasted longer than 1 day in the previous 5 years?  
The last outage was 6 years ago, and lasted 1.5 days, but MSRW was still able to send water to McClusky and other users by bypassing the booster station.
- How many times in the past 5 years has the WTP been shut down?  
Three or four times, with minimal impact to users along the mainline. This has been due to electrical outages.
- If there is a break in the MSRW mainline, how does this effect our city?  
Mercer will most likely not notice any breaks in MSRW mainlines, because the City will have their own storage supply.
- If there is a water main break on the supply line into Mercer main that feeds our tank; how long can we sustain our tank not getting filled?  
Mercers proposed tank will store 10,000 to 12,000 gallons. The average water demand in Mercer is 9,000 gallons per day (based on 3.2 million gallons per year). This equates to roughly 1 day of supply no impact to users.
- How long does it take to fix a typical water main break?  
Depending on availability of contracts, 4 to 6 hours is typical of replacing a mainline break.

## Flow and Fill

- What is our current flow and fill rate  
The well is capable of producing 140 gallons per minute (gpm)
- What is the average amount of flow our tank will receive?  
Flow in our supply line pipe will be approximately 60 psi, yielding 1,500 to 1,900 gpm into our tank  
Flow pressure at the connection to MSRW is 140 psi.
- How will MSRW regulate the amount of water we get?  
Adequate volume will be provided to supply Mercer. This will be regulated by a control valve inside of the water building.
- What will happen if the city uses more water during a peak month (900,000 gallons)?  
No impact
- If 500 gallons per minute was used to fight a fire, what would the difference be between our tank being supplied by rural water and our current pump source?  
Current pump supplies water at 140 gpm. Water from MSRW will come into the system at 1,500 to 1,900 gpm.
- Will our valve vault (meter pit) utilize a pump to feed our water tank or the system pressure?  
MSRW system will feed Mercer's tank, then Mercer will re-pressurize the distribution system.

## Misc

- At the end of the 15 or 20 year contract if Mercer decides to go back to our own system, what would be required and how expensive would that be?  
Based on current costs, a modern water treatment facility can cost at least \$750,000, plus additional wells to supply the volume needed. There are also higher costs of operations and maintenance associated with a treatment facility in the form of staffing, chemicals and utilities.
- What easements will needed?  
We will need to work with the county and land owners to install the water supply line from MSRW mainline to the city limits.
- Will a change to rural water effect fire insurance rates? (The ISO rating is used by insurance companies to define the risk factors of your property.)  
The City is a Class 9 community, and the ISO does not have records of hydrants of a community report.

## NOTES