

Water Financial Details

Current Water fund balance: \$190,000

Gallons of water used from 2017 totals:

126,500 gallons per day = 3,795,000 gallons per month = 46,172,000 gallons per year

Water department expenses
yearly income = \$345,000



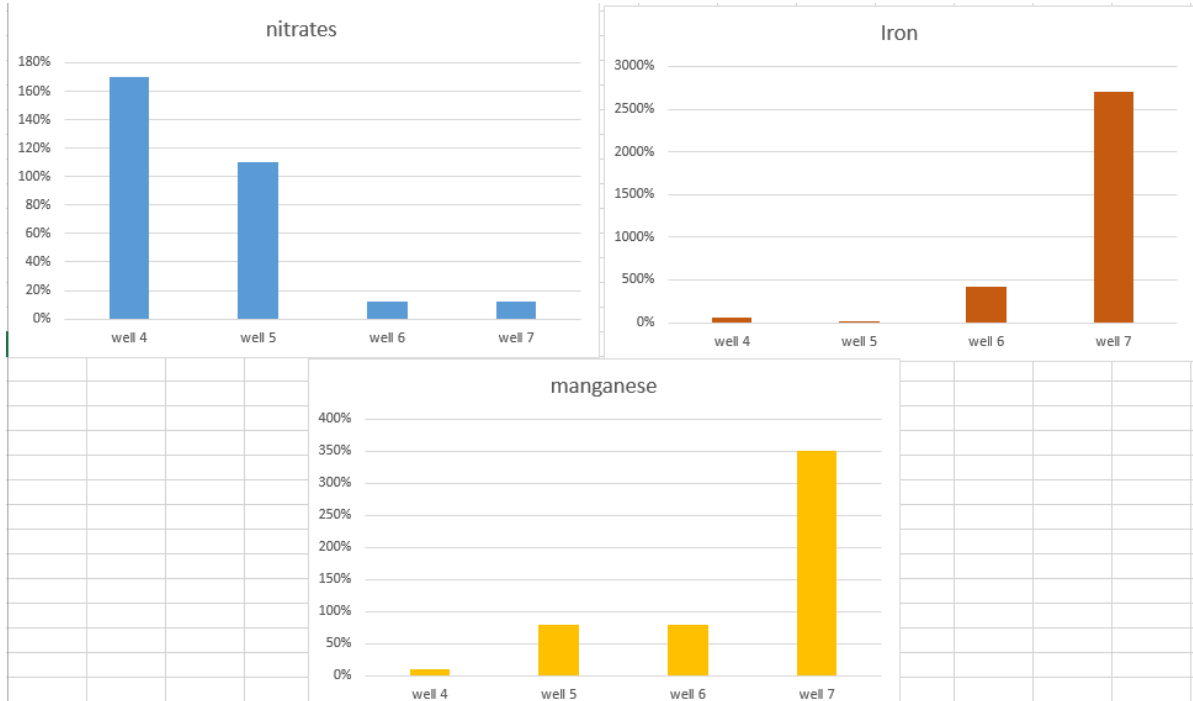
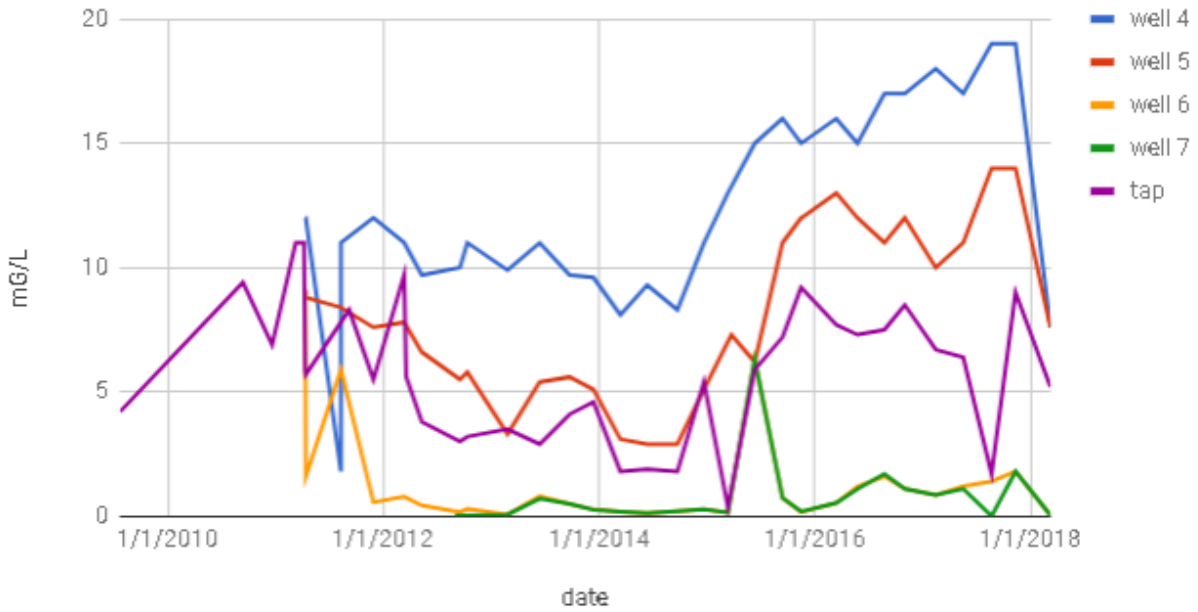
Unallocated: This money was previously used to pay off money owed to the general fund(roughly \$300,000), and is planned to begin updating/upgrading infrastructure and/or purchasing water.

Current Expenses: Includes ~\$58,000 spent on producing water.

Our cost to produce now				
	year cost	month cost	cost per thousand gallons	
electricity	\$7,596	\$633	0.161	from well fields bills
lab testing	\$4,059	\$338	0.086	2015 totals
chemicals	\$13,480	\$1,123	0.286	2015 totals
equimpment/maintenance	\$5,000	\$417	0.106	approximate
SCADA system	\$1,000	\$83	0.021	
labor	\$12,528	\$1,044	0.266	2 hours per day, this won't be saved
well cleaning	\$14,400	\$1,200	0.305	
	\$58,063	total	1.231	per thousand gallons
			0.966	realized saving

Why we need to plan for the future

Nitrate Levels



Current Hardness: 310mg/L = 18 grains

Option #1 – Do Nothing

Keep everything the way it is, hope the nitrates go back down, and accept brown water complaints as a cheaper way of operating.

We could wait until things get worse and take action down the road.

This would keep the current cost of: **\$1.23** per 1,000 gallons

Option #2 – Treat our Iron and Manganese

Just treating our iron and manganese is the cheapest way to treat it ourselves, but this is risky. We would stop using the highest Nitrate wells. Water would still be hard.

Farnsworth estimated the cost: \$1,500,000 to \$1,800,000 average: \$1,650,000

Annual cost to run will **INCREASE** \$19,000 per year, not including labor.

This would be in addition to our current costs. Total current cost + loan + increase in annual expenses

Spread cost over 20 years: **\$3.91** per 1,000 gallons

Spread cost over 40 years: **\$3.05** per 1,000 gallons

Option #3 – Treat Nitrates

Treating nitrates is more expensive, less risky, and more complicated. Process would use Anion exchange. Water would still be hard.

Farnsworth estimated the cost: \$2,090,000 to \$3,260,000 average: \$2,675,000

Annual cost to run will **INCREASE** \$46,500 per year

Just like option #2 this would be in addition to our current costs. Total current cost + loan + increase in annual expenses

Spread cost over 20 years: **\$5.92** per 1,000 gallons

Spread cost over 40 years: **\$4.53** per 1,000 gallons

Option #4 – Buy water from Illinois American water in Lincoln

Illinois American Water could sell us water. We would need to run a 6.8-mile water line to Lincoln and build a pumping station somewhere along the line to boost the pressure.

Water would be slightly harder than what we have now. No contract would be necessary.

Spread cost over 40 years: **\$3.63** per 1,000 gallons

Guaranteed to increase, could jump to **\$4.50** per 1,000 gallons

Option #5 – Join United Regional Water Co-op

This would be a brand-new treatment plant, serving multiple communities. Water would be lime softened. Softness = 6 to 10 grains. Softer water has many advantages.

Requires 40-year contract.

If we hook up near Herrin, we would need to run a 3,000-foot line (\$50,000 = \$0.03 per 1,000 gal).

Cost to purchase water: **\$3.63** per 1,000 gallons

If other communities join, this number will go down. Communities interested in order of likely-hood = Dawson, Rochester, Sherman/Williamsville.

If Dawson joins: **\$3.20** per 1,000 gallons

Option #6-A – Sell our water system to Illinois American Water now

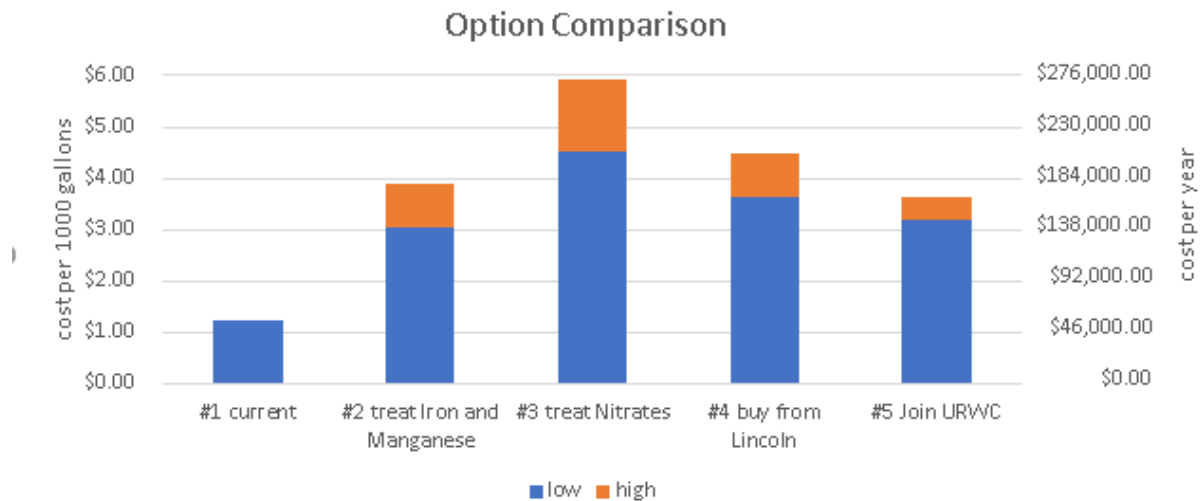
IAW would pay for our system (1 to 3 million), then they would be in charge of running the system, and residents would pay IAW instead of the city. City would no longer be responsible for anything with the water system. Proceeds from the sale would go to paying off our debt, the remaining balance could be spent without restrictions.

Average customer(3,500 gallons per month) water bill would increase \$10 to \$12 dollars per month.

IAW would come up with their own water solution. Most likely they would do something similar to option #2. IAW would commit to significant infrastructure improvements totaling \$2.5 M over 5 years.

Option #6-B – Sell our water system to Illinois American Water later

Even if we continue with our own water solution, IAW would be interested in purchasing our system afterwards, if we wanted to sell then.



What does this mean for water rates?

We currently spend \$56,000 on producing water.

We could afford to spend \$156,000 with current rates. Although this would not leave money for infrastructure replacement/improvements.

Yearly Costs		
Option	low	High
#1 current	\$56,792	\$56,792
#2 treat Iron and Manganese	\$140,825	\$180,533
#3 treat Nitrates	\$209,159	\$273,338
#4 buy from Lincoln	\$167,604	\$207,774
#5 Join URWC	\$147,750	\$167,604

Survey

Please fill this out and hand in

Are you currently a water customer? ☐ YES ☐ NO
Do you currently have a water softener? ☐ YES ☐ NO
Would you consider soft water a benefit? ☐ YES ☐ NO ☐ Not Sure

Which of the presented options would you like to proceed with? _____

- 1) Do nothing
- 2) Treat – Iron and Manganese
- 3) Treat – Nitrates
- 4) Buy water from ILAW
- 5) Join Co-op
- 6) Consider selling

Should Mt. Pulaski consider selling its water and/or sewer system? _____

(OPTIONAL) Name/Contact info _____

Any other comment?
