

Not Your Average Main Break By Mike Stanzel, Circuit Rider

On a late Monday afternoon in January my phone rings and I see it's from an operator who I work with on a regular basis. I answer, "Hey, what's up buddy?" And his reply is, "I'm just standing here watching water gush from underneath the highway." I reply, "Be there first thing in the morning." Little did I know that I would be spending the next three days on what's otherwise known as the "water main break from hell."



I arrived on Tuesday morning. In the previous 24 hours his wells had pumped approximately 740,000 gallons more than normal putting the break at about 500 GPM. We then studied the map and began attempting to isolate the leak. This is where we started running into problem after problem.

Almost every valve we shut needed to be located under the snow and ice. We had to chisel and torch the ice and rust just to get the lids off. Some valves were under gravel roads that needed to be thawed and dug out as well. Needless to say, at the end of the day, we had closed 14 valves and still had full pressure at the leak site, so we called it a day.

We were back at it Wednesday morning. After reviewing the map we started closing more valves running into the same issues. 12 more valves, 26 in all were closed and we still had 500 GPM gushing from under the highway. Then the decision was made to call in the reinforcements, a large construction company from a neighboring town. Equipment was starting to arrive by 5 p.m. Wednesday evening and that was a sight for sore eyes.

By Thursday morning they had brought in a track hoe, dump trucks, loader back hoe, a trailer full of tools and equipment and, most of all, MANPOWER. The NE Roads Dept. brought in barricades and detour signs as the highway needed to be shut down and rerouted. It was time to get busy.



Concrete was removed and excavating was started all while full pressure was still on the main. Three gas-powered trash pumps were used to keep up with the flow until the main was exposed enough to put a repair sleeve on. Finally by 5 p.m. Thursday, the leak was repaired.

But that's not the end of it. Friday morning it broke again two feet from the previous break, and it also broke again on Monday across the road.



By the time it was said and done they had installed two new line stops and 55 feet of new pipe, had excavated clear across the highway and had replaced all the concrete. If I was to guess the total cost of this break, it's probably \$40,000 - \$50,000. This can definitely cause a financial burden to any size town.

How can this be prevented? It can't! All I can suggest is to keep good maintenance records. Keep track of where your breaks are occurring. If they are in the same area, prioritize them and try to get them scheduled for replacement. I can't stress enough that you have got to keep your town boards informed on the quality and condition of your water system.