

## FIRE PROTECTION COST

By Randy Hellbusch, Circuit Rider

This is an article that I wrote back in 2005. I have recently had a few inquiries about this subject. As stated below, I am not necessarily a big advocate for charging a hydrant fee in small water systems but it is good ammunition when consumers complain about the cost of water. It is one aspect that many residents just take for granted.

If you ask any water operator or system manager what their main goal is, they will tell you it is to deliver safe water. Most of us in the drinking water industry consider it our job to do just that, deliver safe drinking water.

While it is true that delivering safe potable water is the no. #1 goal, fire protection is a close second for many small towns. This is one more aspect of many water operator jobs that the public just takes for granted. If a house catches fire everyone expects the fire hydrant to work so that hopefully a major disaster can be avoided. What most people don't think about is that this all comes with a cost. In conducting water rate studies, I am being asked more often by systems about charging a fee for fire protection. This is a practice some larger systems utilize. I don't know of any smaller systems that currently use this practice and must admit that I haven't given much thought to it in the past. It is an idea that does make sense.

If it wasn't for the need for fire protection, many small community water systems could have been constructed at far less costs. Piping could be downsized. Well capacity could be reduced and water storage needs could be greatly reduced, if not eliminated. I am in no way advocating that we don't provide our citizens with fire protection, but when water rates increase, I feel it is one aspect that the public doesn't give much thought to.

There are many ways to figure fire protection costs. Much depends on the variables of each individual water system. Without going into the boring details, using the calculations derived from AWWA M1, and using data I have from small water system budgets throughout the state, as near as I can figure, a good average cost is about \$200.00 per year per hydrant. This figures in the added cost of the larger piping depreciated over time, capacity demands on the system, hydrant maintenance, etc. Hypothetically, let's say a town of 1,000 people with 450 customers has 100 hydrants. If you take the 100 hydrants X \$200 and divide by the 450 customers and then divide by 12 months you get \$3.70 per month per user for fire protection. This may or may not be something your water system would want to consider. It is good information though for the next time a customer complains about their water bill.