



FLUSHING AND LEAK DETECTION

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Hopefully everyone has had an easy winter this year. Now it's time to start looking at the tasks that a water system does in the spring including unidirectional flushing and leak detection. A good reason to do a unidirectional flushing is to move a lot of clean water through the system in one direction to get rid of all the contaminants that are in the system. The only good way to do that is with a unidirectional flushing program, rather than just going around and opening fire hydrants and letting water run. I know many systems do unidirectional flushing but then there are other systems that just flush. Systems that are having problems with disinfection byproducts and HA 5's would greatly benefit from doing a scouring unidirectional flushing. If you are having problems with HA 5's and disinfection byproducts, your local health department is going to suggest a unidirectional scouring flushing program.

Here are some tips to consider in doing a scouring flush. First, you should close your valves on your loops to create dead-ends. You should then start your flushing from your tank or your distribution pumps working outward. You will also need to close and open different valves to create a scouring unidirectional

flushing. The minimum velocity that you should use is 5 feet per second for 4 inch diameter pipe. So, for example on a 4 inch diameter pipe with a length of 600 feet, you need to flow a minimum of 196 gallons per minute. The amount of time you need to flush that section to get a scouring flush would be 6 minutes. On a 6 inch pipe, you would need a minimum of 10 feet per second, with a minimum flow of 440 gallons per minute, for 6 minutes, to get a scouring flush. In addition, we suggest that you have a contact mic to listen to each hydrant before you open it and after you close it. This way you can tell if your hydrant is closing down all the way and not leaking out through the bleeder in your hydrant. If your hydrant is noisy before you start and it is still noisy when you are done, you may want to consider looking in that area for a leak in the system. If you are interested in creating a unidirectional flushing program for your system contact NYRWA for assistance. John Farewell and I are available to assist you. It will take a little time and effort to create a good unidirectional scouring flushing program but in the long run, it's well worth the time and effort. Until next time, happy unidirectional flushing. 💧💧💧