

CASE STUDY: HYDRO-GUARD® SOLVES WATER QUALITY MAINTENANCE PROBLEM IN COLLIER COUNTY, FLORIDA



THE SITUATION.

A dead-end water line extends down a *cul de sac* located in a low demand portion of the distribution system. In order to provide adequate fire protection, water in this 8-inch dead-end water line has a long hydraulic residence time. This portion of the water system was a continuing water quality problem for Collier County's Water Department because it was difficult to maintain adequate chlorine residuals. In order to keep the chlorine residual as high as possible, the Collier County Water Department regularly dispatched a distribution maintenance crew to manually flush this water line using the last fire hydrant at the end of the street. This regular manual flushing operation consumed substantial crew time and associated cost.



Hydro-Guard® automatically flushes this water line for a designated period of time on a regular basis at a pre-set time of day. The desired flushing frequency and duration is programmed into the Hydro-Guard® using a hand-held programming unit. At this location, Hydro-Guard flushes for four minutes at a rate of approximately 150 gpm once each night. No distribution staff is required to accomplish this daily flushing activity.

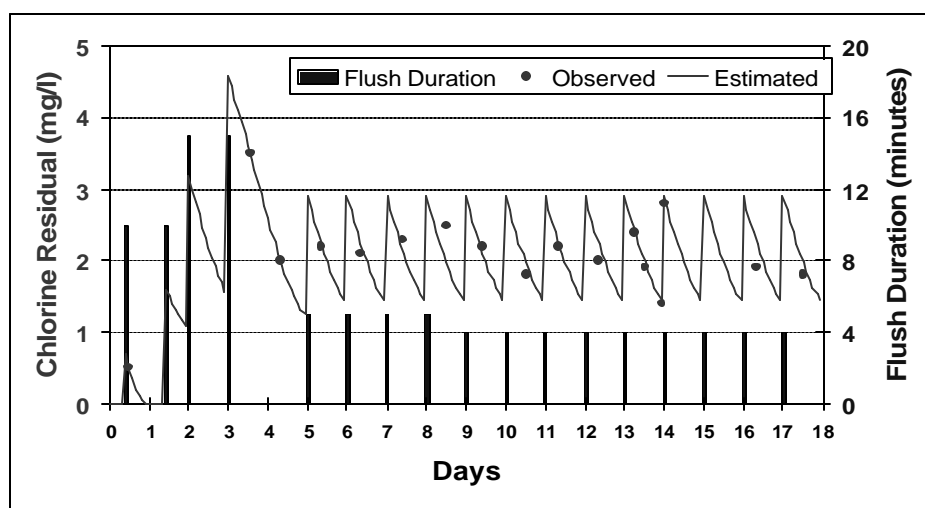
THE RESULTS.

Within three days of operation of the Hydro-Guard®, the chlorine residual in this problem area was brought up to in excess of 3 mg/l. The length of time for flushing was then reduced to obtain a target average 2 mg/l chlorine residual maintenance level. The illustration below

provides residual levels on a daily basis with the corresponding flush duration.

THE SOLUTION.

The solution to this ongoing water quality maintenance problem was found with the installation of a Hydro-Guard®. This device performs automated *Advanced Maintenance Flushing* of water lines. *Advanced Maintenance Flushing* is accomplished through a **regular** periodic flushing of problem water lines to maintain quality and disinfectant residuals. Through periodic discharge of water, the average residence time is reduced and acceptable chlorine residuals are maintained.



For more information about how Hydro-Guard® might solve your water quality maintenance needs, please contact us at 1.888.277.4520 or on the Web at www.Hydro-Guard.com