



Operation & Maintenance of Water System Valves

Valve Maintenance Benefits

- ❑ **Reliability** – the ability of a valve to operate as expected when required is the biggest payback in a valve maintenance program
- ❑ **Extended Valve Life** – valves that are regularly exercised last longer, and operation and maintenance costs are always less than unexpected valve replacement

Key Components of a Valve Maintenance Program

- ❑ Identify all valves in your distribution system
- ❑ Locate valves (check tie-ins) and verify operational information (i.e. valve size and operating direction)
- ❑ Note condition of valve and valve box
- ❑ Identify problem valves and schedule repairs
- ❑ Exercise the valve from fully open to fully closed positions
- ❑ Maintain detailed records for each valve (i.e. operating direction, # of turns, condition of valve components, location coordinates, etc.)
- ❑ Develop an annual inspection & exercising program for all valves in your system

Valve Exercising Tips

- ❑ Number of turns to fully open depends on valve size. Rule of thumb is 3 times valve size plus 2 turns. A 150 mm (6 inch) valve takes about 20 turns to fully close.
- ❑ When closing a valve, make 4 or 5 turns then reverse for a turn or two, and repeat until fully closed. This will help scrub off accumulated debris from the gate.
- ❑ Resist the urge to “crank it” when meeting resistance. Small turns in each direction will help, and will avoid a broken valve stem.
- ❑ Count the turns to fully open and fully close the valve – they should match.
- ❑ After exercising valves, open a nearby hydrant to flush out scrubbed off debris.
- ❑ **Make safety a priority – wear safety vests, and use traffic control.**