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.**

Newfoundland Labrador

Environment, Climate Change and Municipalities
Water Resources Management Division
Drinking Water and Wastewater Section