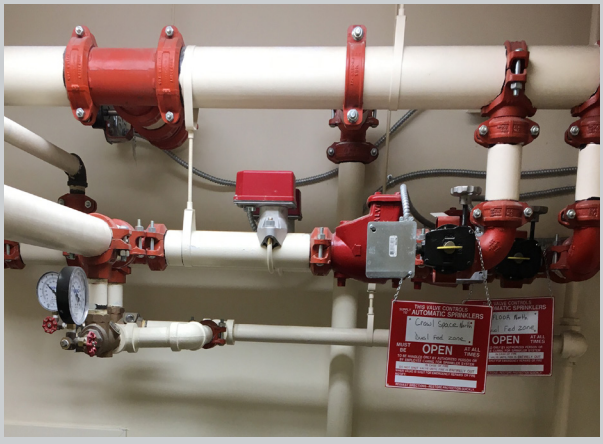
City of Portsmouth



Water Quality in Commercial Buildings

Public water systems are responsible for the delivery of water to customers' private water lines or facilities. However, once that water enters a private facility, it is the owner's responsibility to assure that water quality is maintained throughout their pipes and plumbing. It is important that you and your facility managers are aware of all of your internal plumbing in order to assess whether or not conditions exist that may degrade water quality.

The City of Portsmouth's public drinking water system serves over 8,500 regional water customers in the New Hampshire Seacoast. Water operations staff take great measures to ensure that the drinking water delivered is of ample quantity that meets all current drinking water regulatory standards. Water quality information is summarized annually in our water quality report sent to all customers and posted on the City's website. Water system maintenance includes twice-a-year flushing of fire hydrants to clear any buildup or debris in the water lines. The Portsmouth Health Department provides Environmental Health Services for the protection of Portsmouth residents and visitors. The Building Inspection Department is responsible for the review and approval of building, electrical, plumbing and mechanical plans and specifications.

Degraded water quality, including bacteria like Legionella, can occur in plumbing that is not properly maintained. Lead can be released when water comes in contact with pipes and plumbing fixtures that contain lead. Lead sources and lead levels vary between buildings, so it is important to identify and remove any lead sources in each building. Bacteria can grow in warm, stagnant water. Faucets, shower heads, dead-end water lines and other areas that are not flushed and maintained may cause this growth. Water heaters and cooling towers must also be properly maintained and operated. A good management resource for plumbing maintenance can be found at: https://www.cdc.gov/legionella/wmp/toolkit

Make sure that your plumbing is up to code. The City of Portsmouth has adopted the 2009 International Plumbing Code with Amendments. If your facility has whirlpools, hot tubs or pools, you should take additional measures to ensure that they are properly maintained and operated.

Tips to Minimize Changes in Water Quality & Prevent Contamination

Flush building water systems after periods of minimal or no water usage:

- Commercial buildings are often vacant during weekends and holidays, and experience periods of water stagnation – minimal or no water usage.
- Water stagnation may cause a reduction in disinfection protection and cause increased bacterial growth in the building pipes.
- Locate the taps on each floor that are furthest from the floor's water service riser and flush the cold water taps for 10 minutes.
- Flush each fountain for one minute or install fountains with automatic flushing devices.

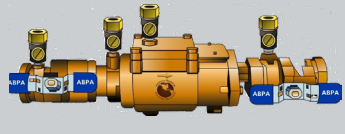
Install lead-free plumbing fixtures:

- Lead-free plumbing can minimize lead from entering the building's drinking water system.
- Install fixtures and fittings that contain 0.25 percent lead or less.
- Until 2014, brass faucets and fittings sold in the United States that are labeled lead-free can contain up to 8 percent lead.

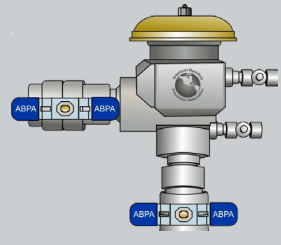
Backflow Prevention Program

The purpose of the Backflow Prevention Program is to ensure that there is no possible contamination of your drinking water due to improper plumbing interconnections. The backflow device is a mechanical valve that senses a flow reversal and stops possibly harmful water from mixing with the drinking water. The program is mandated by the U.S. Environmental Protection Agency and the N.H. Department of Environmental Services. The backflow device is owned and maintained by the property owner and the testing is performed by our certified backflow testers. A fee is included in customers' water bills for the testing service. Locations that are found to have high hazard backflow potentials are required to be tested twice a year. Low hazard sites are tested once a year. Any device that fails a test must be repaired and retested. **All commercial and industrial buildings require backflow devices.**

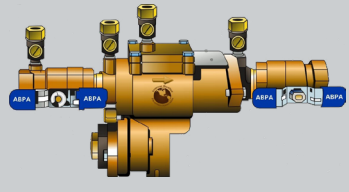
Common Backflow Prevention Assemblies



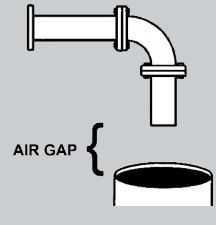
dcva (Double Check Valve Assembly)



pvba (Pressure Vacuum Breaker Assembly)



rpba (Reduced Pressure Backflow Assembly)



Air Gap

Pictures are for illustration purposes only.

Additional New Hampshire Department of Environmental Services information on program requirements: https://www.des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-11-1.pdf

Information or questions on the Backflow Prevention Program, contact the Department of Public Works, Water Division, Meter/Backflow Staff at 603-427-1530. Online information available at: www.cityofportsmouth.com/publicworks/water/new-service-meters-backflows

Information or questions on the Plumbing Code, contact the Inspection Department at 603-610-7243. Online information available at: www.cityofportsmouth.com/inspection/city-codes

The Health Department can be reached at 603-610-7273 or by email at: health@cityofportsmouth.com