

Summary:

When buildings are unoccupied for extended periods of time the water inside the buildings plumbing system becomes stagnant and water quality degrades.

As buildings begin to reopen, stagnant water in internal plumbing systems should be cleared or flushed from the system. Flush both cold and hot water through all points of use (e.g., showers, sinks, etc.). The purpose of this flushing is to replace all water inside building piping with fresh water from Capital Region Water's distribution system. You should know when water is flushed when it turns from slightly warm to cold or from warm to hot (i.e., the hottest output of the water heater).

The American Water Works Association, which references guidance from the U.S. Centers for Disease Control and Prevention (CDC), has issued guidance on building water system and devices after a prolonged shutdown. This includes building owners/operators of hotels, schools, childcare facilities, office buildings, and public buildings. Capital Region Water recommends that building owners and maintenance staff review this guidance - <https://www.awwa.org/Resources-Tools/Resource-Topics/Coronavirus#10681543-shutoffs-and-return-to-service-guidance>.

Flushing your Water System:

Consider the guidance below to ensure the safety of a buildings water system after a prolonged shutdown:

1. Prevent backflow or back siphoning of contaminants into plumbing by closing any valves separating irrigation systems from building plumbing systems and disconnect hoses attached to faucets.
2. **After removing any faucet aerator or filter**, turn on the **cold** water inside the building at each point of use (showers, break room sinks, drinking fountains, utility closets, restrooms, etc.).
 - a. Organize flushing to maximize the flow of water (e.g., opening all outlets simultaneously to flush the service line).
 - b. Then flush from the point (i.e., faucet) closest to where the water enters the building, nearest the water meter, and flush in zones to the distant ends of the building. Remember to run cold water only.

- c. The cold water has been successfully flushed when you feel the water temperature go from slightly warm to cold (typical duration will vary between 10 and 30 minutes for each outlet).
3. Flush hot water storage tanks to displace stagnant/discolored water with fresh water. Flush boilers, hot water tanks, hot tubs/spas, etc. according to the manufacturer's flushing instructions. Specific devices, such as water heaters, may need to be drained after a prolonged period of disuse. Repeat step 1 using **hot** water.
 - a. The hot water has been successfully flushed when you feel the water temperature turn from warm to hot.
 - b. Hot water should reach its maximum temperature.
4. Inspect mechanical equipment to ensure that there are no issues regarding their function. Flush and perform preventive maintenance on point of use devices, such as cooling units, fountains, systems providing additional water treatment, etc. per the manufacturer's recommendations as applicable.
5. Ensure safety equipment including fire systems, eye wash stations, and safety showers are clean and well-maintained. Flush, clean, and disinfect these systems.
6. Once all domestic water service lines, internal plumbing, and point of use devices/systems are flushed/properly maintained, the building can be occupied. If the building is not scheduled for immediate reopening and regular use of water, weekly flushing may be necessary.
7. Building managers may consider use of a chlorine test kit to measure this residual. Water is considered refreshed and ready for use when there is a 0.5 ppm (mg/L) chlorine residual present at the point of entry. Chlorine test kits can be obtained at local hardware stores. Samples should be taken at the farthest point of use from where water enters the building.
8. Contact Capital Region Water, with any questions. CRW can be contacted at 888-510-0606 or via email at info@capitalregionwater.com.