

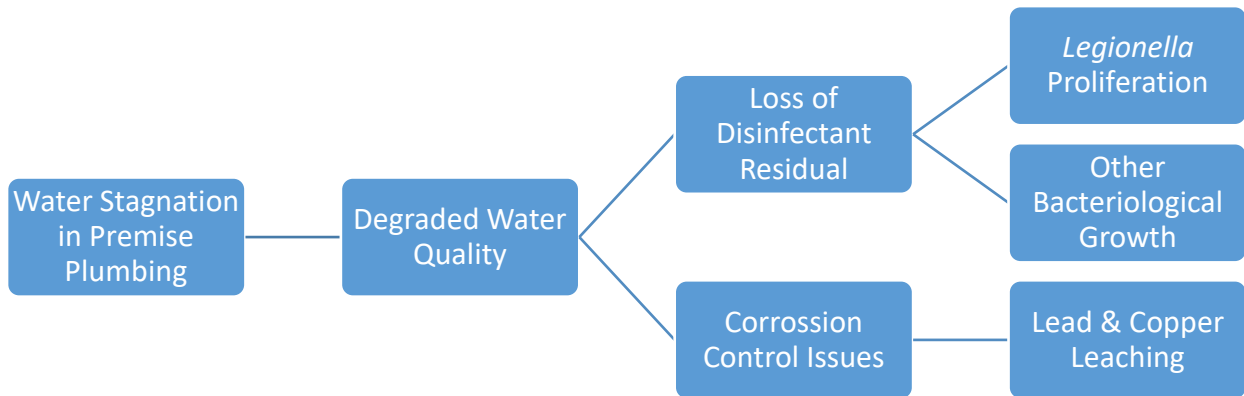


KENTUCKY ENERGY & ENVIRONMENT CABINET GUIDANCE FOR REOPENING BUSINESSES/BUILDINGS REGARDING SAFE DRINKING WATER

April 29, 2020

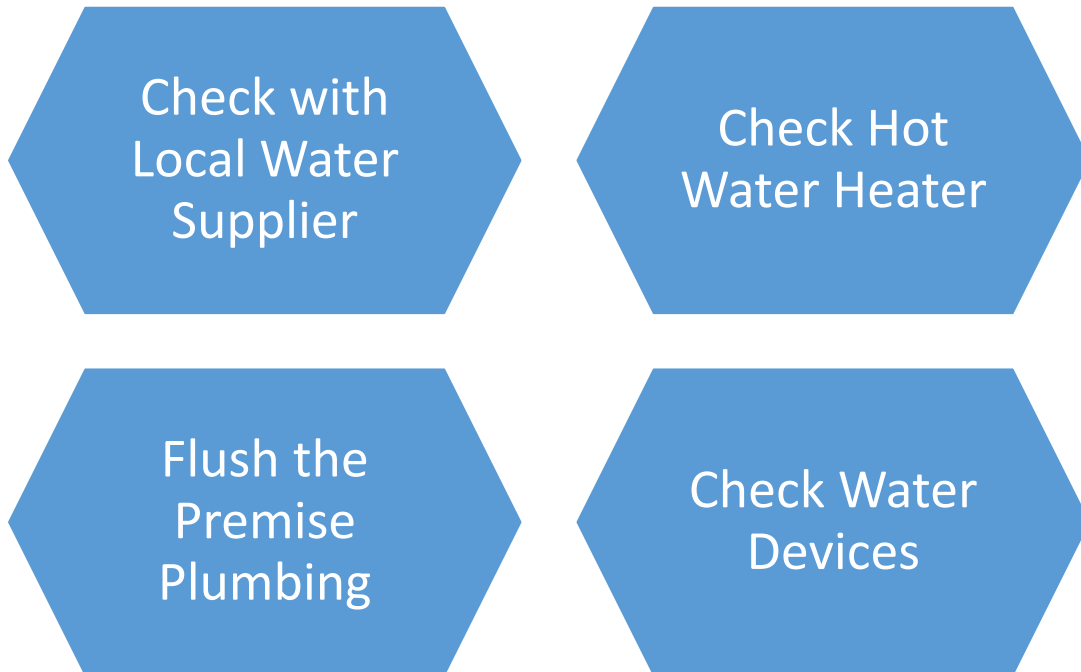
The coronavirus disease (COVID-19) pandemic prompted the closure of many businesses and buildings. Prolonged periods of water stagnation in premise plumbing will degrade water quality and could lead to potential health concerns if not properly addressed. As these establishments begin to reopen it is important that proper precautions are taken to ensure the safety of the drinking water.

Concerns of Water Stagnation in Premise Plumbing



Concerns with degraded water quality include loss of disinfectant residual and the potential for corrosion control issues. Without proper disinfectant levels in the distribution system and premise plumbing there is potential for bacteriological growth, including *Legionella*. If proper corrosion control barriers are not in place heavy metals, including lead and copper, may leach into the drinking water.

Steps to Take Before Reopening Buildings



Check with Local Water Supplier

Before reopening, business and building owners should contact their local water supplier. This is to ensure the water entering the building has adequate disinfectant residuals present to address potential bacteriological growth. This point of contact will also ensure there are no other issues in the distribution system that may impact the quality water entering the building, such as flushing or other maintenance.

Check Hot Water Heater

Follow the manufacturer's instructions on proper hot water heater operation. Determine if the manufacturer recommends draining the water heater after a prolonged period of disuse. Set the water heater temperature to at least 120°F to reduce the risk of bacteriological growth, but no higher than 130°F to prevent scalding.

Flush Premise Plumbing

The American Water Works Association provides the following guidance for flushing premise plumbing:

1. Remove or bypass devices like point-of-entry treatment units prior to flushing.
2. Take steps to prevent backflow or the siphoning of contaminants into plumbing (e.g., close valves separating irrigation systems from home plumbing, disconnect hoses attached to faucets, etc.)

3. Organize flushing to maximize the flow of water (e.g. opening all outlets simultaneously to flush the service line and then flushing outlets individually starting near where the water enters the structure).
4. Run enough water through all outlets (e.g., hose bibs, faucets, showerheads, toilets, etc.), removing aerators when possible. Typical durations in existing protocols range from 10 to 30 minutes for each outlet (duration varies based on outlet velocity).
5. Flush the cold water lines first, and then the hot water lines. Note: the hot water tank can be drained directly. It can require roughly 45 minutes to fully flush a typical 40-gallon hot water tank. [If necessary, according to manufacturer's recommendations.]
6. Replace all point-of-use filters, including the filter in refrigerators.
7. Additional precautions may be warranted if there is excessive disruption of pipe scale or if there are concerns about biofilm development. Actions that might be warranted include continued use of bottled water, installation of a point-of-use device, or engaging a contractor to thoroughly clean the plumbing system.

For more information, refer to the [AWWA Shutoff and Return to Service Guidance](#).

Check Water Devices

Ice from ice machines should be discarded and the lines to the machine should be flushed before returning to service. Additional guidance for larger buildings and campuses including information on Water Management Program development, Legionnaires' prevention, hotel guidance, fire suppression systems, cooling towers, hot tubs/spas, decorative water features, and water system maintenance is provided in the [CDC Guidance for Building Water Systems](#).

ADDITIONAL RESOURCES

- [CDC Model Aquatic Health Code](#)
- [CDC Healthcare Water System Repair and Recovery Following a Boil Water Advisory or Disruption of Water Supply](#)
- [ASHRAE Standard 188: Legionellosis Risk Management For Building Water Systems](#)
- [ASHRAE Guideline 12: Minimizing the Risk of Legionellosis Associated with Building Water Systems](#)
- [Cooling Technology Institute Legionellosis Guideline 2008 \(WTP -148\).pdf](#)
- [Cooling Technology Institute Legionellosis Guideline 2019 \(GLD 159\)](#)