

## Water system safety in reoccupied buildings

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Ensuring water system safety in reoccupied buildings under COVID-19 restrictions.

As COVID-19 Alert levels drop, it is important to ensure that the water systems in your building are safe for when people return.

When water is not drawn through a building's water system over an extended period, the water becomes stagnant making it potentially harmful to people. Water stagnation is usually prevented through regular water use, which brings in a consistent supply of fresh water from the public mains.

Indicators of stagnation include a bad or "off" taste, unpleasant odour or slight discoloration which can indicate bacteriological growth and pipe corrosion. Stagnation can support the accelerated growth of many microorganisms and pathogens, such as Legionella, which can cause harm to building occupants. It is also possible that water left sitting for long periods of time within a building's water system could contain excessive amounts of heavy metals.

Regardless of whether the signs of stagnation are present, it is recommended that you ensure your building's water supply is thoroughly flushed before people return to work following the lockdown.



### Example procedure for flushing a building water supply system

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Flush water through all points of use within the building before reopening such as showers, sinks, toilets. The process for doing this will vary depending on the building, and may need to occur in sections (e.g. floors or individual rooms) due to building size and water pressure. The main goal of building flushing is to replace all water inside the building's pipes with fresh water.

1. Remove tap aerators, point-of-use filters and shower hoses where possible, which will increase the flow of water and limit the amount of sediment trapped during flushing.
2. Organise flushing to maximize the flow of water, by either:
  - Remove tap aerators, point-of-use filters and shower hoses where possible, which will opening all cold water outlets simultaneously to flush the service line and internal pipework, or
  - Remove tap aerators, point-of-use filters and shower hoses where possible, which will flushing all outlets individually, starting near where the water enters the building and moving systematically through the building to the most distant outlet.

Flush cold water pipe first, followed by hot water.

3. Run enough water through all outlets to replace all water inside building piping with fresh water. This will vary based on pipework volume and outlet speed.
4. Replace all tap aerators and point-of-use filters and shower hoses.
5. If you see excessive disruption of pipe scale or if there are concerns about biofilm development, additional precautions maybe needed including continued use of bottled water, installation of a point-of-use device, or engaging a contractor to thoroughly clean the plumbing system.

While it is important that all water in a building's pipes is replaced, please give consideration to any local water use restrictions which may be in place.

### Floor drains

If the building has floor drains, it is possible the water seal within the trap of each drain will have evaporated without use, potentially letting sewer gasses enter the building. Pour water into each drain to make sure that the trap water seals are fully restored.

## Building Services (HVAC/fire/electrical/gas systems etc.)

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Each building is different. Depending on the level that a building was shut down prior to lockdown, additional work may be necessary to ensure buildings are safe to use before people return. It is recommended that building managers contact their maintenance providers to ensure buildings are safely recommissioned before reoccupancy as needed.



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