Simmonds & Bristow Pty Ltd

The Regional and Remote Water Specialist

Is your property at low or no occupancy during Covid-19 restrictions?

Don't forget to scour!

Why would I need to flush my network?

The water entering most drinking water mains is treated and low in sediments. However, small particles and sediments can build up over long periods, particularly if the water is slow-moving or stagnant. This can increase the chances of biofilms growing within the pipework.

If left alone, this can result in customers receiving discoloured water, and sediment can affect the aesthetics of taste, clarity and odour as well. Any residual disinfection in the treated water may also dissipate and no longer provide protection against the growth of biofilm

Flushing the network is the most commonly used remedial action to remove sediment build up in the network and reduce the risk of microbiological contamination in stagnant water reticulation networks. Solids may consist of algal build-up, cement lining corrosion or sediment from the treatment process. If, when the scour is operated, other solid material is evident, such as pipe lining or stones, this is evidence of a potential blockage in the distribution system.

What is flushing?

Flushing is when water is released from a hydrant or access point at a high flow rate so that it 'scours' or scrubs any sediment in the pipes by pushing freshwater from the treated reservoir through the network at a high velocity.

These access points can be called or used in a number of ways but mean the same thing, a point where the water can be flushed out at a high flow rate. The purpose of a scour is to remove solid matter from the water system.

- Hydrants
- Scour points
- Flush points

How long does it take?

The length of time to flush is dependent on the network, the water pressure, and pipe length and diameter, as the time the water moves through the system is different from system to system.



When do I need to flush?

Usually, flushing is performed after long periods of water outages or low use and emergency works/repairs, and lastly, due to customer feedback on water quality. Some systems are flushed weekly or monthly, others only once or twice a year.

Who will be impacted?

While flushing, some network customers may note decreases in pressure, this is network dependant. After flushing, some customers may experience cloudy or dirty water.

- The cloudiness is a result of fine air bubbles trapped in the water supply. An easy way to test for this is to pour a glass of water. If the cloudiness eventually dissipates from the bottom up, it is from tiny air bubbles distributed throughout the glass that is slowly dissipating into the air. This is harmless.

- Dirty water is due to residual disturbed water in the house connection and can be simply flushed by the householder via their kitchen and bathroom sinks to drain. The water should come clean after as little as 2-3mins household flushing.

So we've flushed the mains, what about individual properties?

Household or end-user connections in places such as caravan parks, resort villa or rooms are classed as dead legs. Dead legs are pipe works that are not reticulating on a ring mains basis. It is essential to supply information to your consumers to flush their taps after prolonged periods of no water usage or provide this service as part of your start-up maintenance. This will allow the water in the end-user pipes to be flushed out with fresh water from the mains to ensure the optimal level of disinfection of their potable water supply.

What else is flushing used for?

Hydrants are tested for mechanical flow since hydrant points must be easily accessible in the case of an emergency.

In the event of an emergency, it is important that the maximum amount of pressure or flow rate is discharged from the hydrant.

We test the flow rate by measuring the pressure of water flowing in a given time. This measurement is compared with the standard for hydrant flows, taking into account the load on the system at the time of measurement.

Other than the condition of the hydrant, this information can also be useful in the diagnosis of problems in a section of the main. For example, if the flow rate is below the standard despite the demand period, this may indicate a blockage in the hydrant itself, or in the main.

Testing of other hydrants in the area will identify the reduced rate as an isolated incident and then an order is made for maintenance or repair or further investigation of the system in that location.

Are you unsure of how to proceed?

For specific advice, please contact us

Call 1800 620 690

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