What's behind the tap?

With 15 more towns than there are water treatment plants in the GVW region, some water treatment plants treat water for multiple towns. Pipelines transport the water from the plant to the township/s, where it then enters a normal water main distribution network.

Pipes

The minimum size of water mains is 100mm in diameter in most cases, or 150mm in industrial or commercial areas. Water mains today are constructed mainly of PVC, with some ductile iron mains (cement mortar lined) being used under roads or for critical large mains. Polyethylene and steel are both used. One hundred years ago, wooden and cast iron pipes were used and asbestos cement pipes were installed extensively between 1930 and 1980.

Flows

At peak times water flows at an average speed of about 1 metre/second in mains, with water spending anywhere from a few minutes to a few days in the system before it makes it out of a tap. This depends on time of day and...
time of year – the water runs faster through the pipes when demand is higher, such as at 7am on a weekday, or the summer months when gardens need watering.

Designed to provide water pressure of about 200kPa at the front tap, GVW aims for the system to produce a minimum flow of 20 litres/minute. This is enough to fill one bucket in 30 seconds. Unlined cast iron or steel pipes, commonly used before 1950, are susceptible to corrosion which can restrict flow and therefore pressure.

**Water quality**
The quality of treated water can deteriorate in the distribution system. Sediment, often caused by a chemical reaction between the water and the inside of the pipe, or water treatment chemicals, can build up over time and sit in the bottom of the main where high flows can cause these particles to be stirred up. Also, unlined cast iron mains can impart colour to water. This water remains safe to drink even if there is some colour present, though customers are encouraged to report any instances of discoloured water on 1800 45 45 00, 24 hours a day, 7 days a week.

**Maintenance**
Pipes typically last from 50 to 100 years. Water supply works started in the GVW region in the 1880s, and some of the original pipes laid in the early years are still in use today. Pipes often become brittle with age, and they can then begin to crack due to soil movement. Pipes that have a history of failure are replaced under GVW’s main replacement program.

Maintenance services are provided by our O&M teams district wide and include air scouring, flushing and swabbing, as well as repairs of broken mains. Costs for the upkeep are partly covered by the service component of the water bill.

**The Result**
On average, each GVW customer has an uninterrupted water supply for all but 13.7 minutes each year. It is also good value, at a cost of 96 cents per 1,000 litres for water delivered to your tap.

**Further information**
Contact Goulburn Valley Water at [www.gvwater.vic.gov.au](http://www.gvwater.vic.gov.au), email [mail@gvwater.vic.gov.au](mailto:mail@gvwater.vic.gov.au) or call 1800 45 45 00.