

In the pipeline

City water arrives at your home in a 3/4" or 1" pipe, which can provide ample volume and pressure.



But if the internal plumbing pipes are only 1/2" or less, the volume is greatly reduced — by as much as 75 percent! For example, if your home has adequate water service pressure, but pressure in a shower drops off dramatically when someone flushes a toilet, the problem is volume inside your home. Not enough water is getting through.

Long way to go?

Long runs of piping within your home will reduce the volume of water that can get through, regardless of the amount of water pressure.

When water has to go up to a second floor or higher or when it has to travel a long distance, the flow from the tap decreases. That's



why it's important to evaluate plumbing pipes for possible upgrading when adding on to an older home.

Clogged arteries

Galvanized supply and distribution piping was historically installed in homes prior to 1950. Its use continued into later years, as well.

These pipes commonly rust or corrode from the inside out, restricting the flow of water or worse yet, leaking and creating flood damage to a home.



Life expectancy for galvanized plumbing is generally estimated at about 15 to 20 years for local water characteristics.

If your home has older galvanized piping, chances are these "arteries" connecting your fixtures to the water system may be clogged and need to be replaced.

Devices such as water softeners, filters, decorative faucets and water-saving devices can also restrict the amount of water flow in your home.

Need help?

If you're experiencing water volume problems like those described here, there may be one or a combination of problems involved.

Check your home for the size, type and run of your pipes to see if one or more might be causing low water volumes. Try turning on a tap, then flushing a toilet to see if there's a marked decrease in water from the tap. Check with neighbors to see if they may be experiencing problems and take note of the type of pipes they have, too.

You may also wish to talk to a licensed plumbing contractor, who can check your pipes and fixtures and recommend solutions to enhance your water flows.

Additional information regarding your water service is also available through the City of Vancouver's Operations Center at 360.696.8177.



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Getting into the



Why low water flows happen and what you can do about it

Occasionally, heavy water uses, such as neighborhood lawn watering or firefighting, can cause temporary drops in an area's water pressure. This pressure problem tends to be more common in dry, summer weather.

More frequently, however, what might look like a water pressure problem is actually a water volume problem. This can occur in the system. Much of the time, however, the problem originates from inside the home.

Here's what you can do to improve your water flow.

Too much pressure?

Like high blood pressure, very high water pressure can cause problems if not controlled.

If your home is in a low-lying area and you think your water pressure might be too high, you may wish to check with a licensed plumber to see if you should have a pressure-reducing valve installed to protect your water heater and appliances.

Handy glossary terms

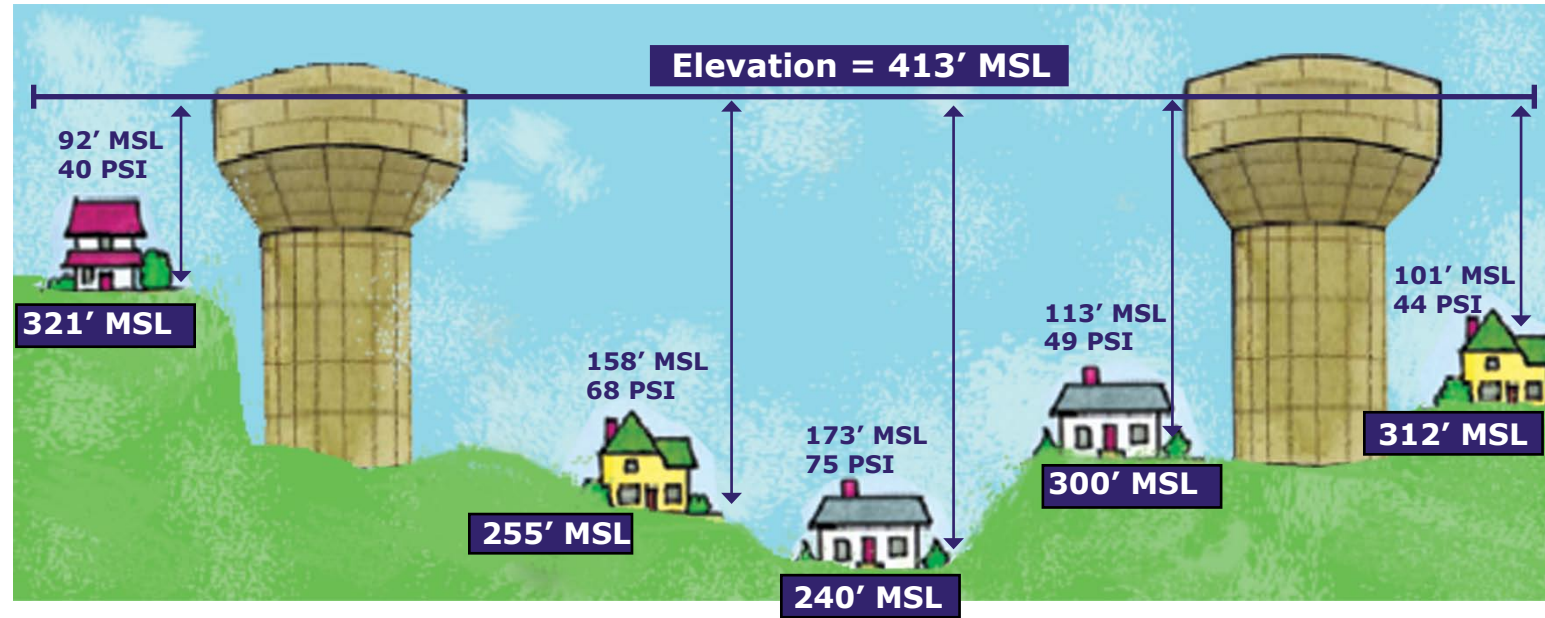
Water pressure: the force of water pushing on a unit area, usually measured in pounds per square inch or PSI.

Static water pressure: water pressure measured at the service line when no water is running

Residual water pressure: water pressure measured at the service line when faucets are running



How gravity drives our water system's pressure



The City of Vancouver's water distribution system is a gravity-driven system, with water stored in large water tanks or towers high above the ground.

The City pumps water from well stations and reservoirs into the water towers to maintain adequate supply and pressure levels throughout our water distribution system. Regular water pressure at any individual home within the system is solely determined by the elevation of a home, relative to the elevation of the water towers that serve that home. The same holds true for businesses and all other users of the system, even fire hydrants. The higher the elevation of the customer, the lower the water pressure. And vice versa. That's why customers in low-lying areas experience higher water pressure than customers on hilltops and ridges. However, while elevation or vertical distance determines water pressure, physical distance from a storage tank does not. Throughout our entire system, the City of Vancouver's water pressure exceeds the Washington Department of Health's requirements of 30 PSI.

Note: MSL, or Mean Sea Level, is used to measure the elevation of the land relative to the average sea level.