What is the City doing to fix the problem?

Scale accumulation inside the water mains has softened from hard rust colored nodules stuck to the pipe walls to dark crumbly sediment. A new pipe cleaning technique called ice pigging was performed in July to thoroughly clean the water mains in the most troublesome areas, and utility crews are flushing water mains more frequently to minimize the impacts to customers from objectionable water. Extensive distribution system sampling is also being done in order to isolate the problem and determine a solution.

Old Solid Scale versus New Dissolved Scale

What if the water smells or tastes funny?

Chlorine and metallic odors and taste are objectionable but usually not a health threat. If the odor and taste occurs at all faucets, the problem may be the public water supply. If the odor and taste occurs only at some faucets, the problem is the household plumbing. Running faucets for several minutes may fix the problem.

The water treatment process adds a small amount of chlorine to kill bacteria. Chlorine in the water leaving the treatment plant is closely monitored to maintain a consistent level, but the chlorine level at your tap varies depending on your location. Chlorine is odorless at the proper level but can be noticeable if the level is too high or too low.

A metallic odor or taste is typically caused by iron in the water. The new groundwater supply is treated to remove iron, manganese and arsenic. But as the water moves through the distribution system, it is interacting with existing pipe scale, dissolving the iron and manganese nodules into the water.

Why does my tap water appear discolored?

Drinking water leaving the treatment plant is colorless, odorless, and tastes good. However, some areas of the City have experienced discolored water and staining caused by temporary upsets in the City distribution system due to flow reversal and the change in water chemistry from the new source. Additionally, tap water may appear brown or orange following a main break, firefighting effort, or system flushing. The discolored water is objectionable and may stain laundry, but it is safe to drink. City Utility crews are flushing more frequently to minimize color impacts to customers. If you see staining, soaps and detergents will not remove these stains, and chlorine bleach can intensify stains. Instead, use a special stain remover formulated to remove iron stains.

Sediment Removed during Ice Pigging

What is the City going to do about the hard water and mineral deposits?

In response to hard water complaints, City staff and water treatment experts are evaluating options to treat for hardness at the Water Treatment Plant. If the City Council decides to treat for hardness, it will take up to 18 months to design and construct new treatment facilities.

What is water hardness?

Hardness is a measure of dissolved calcium and magnesium minerals - hard water has a higher mineral content.

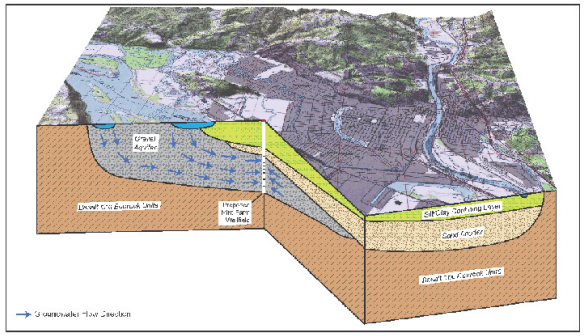
Classification	Hardness (mg/L)
Soft	0 to 60
Moderate	61 to 120
Hard	121 to 180
Very Hard	> 180

Is hard water safe?

Hard water is safe for drinking, cooking and other household uses. It tends to leave white calcium deposits and make soap more difficult to lather, but actually contributes a slight health benefit. Calcium and magnesium are essential nutrients, and softening hard water is not required by the Environmental Protection Agency or Washington Department of Health.

Where do hard water minerals come from?

The groundwater wells are drilled 400-feet deep to extract water from an underground aquifer. As groundwater moves through the deep aquifer, it dissolves and absorbs traces of rock which contain calcium and magnesium minerals.



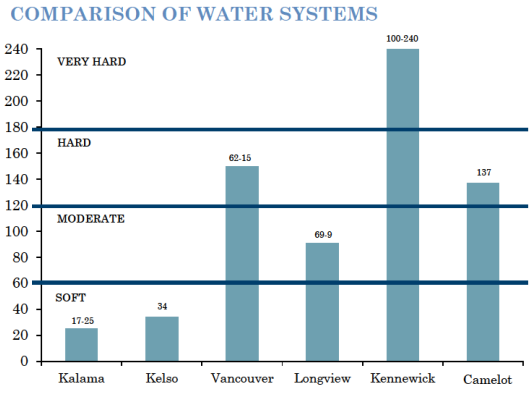
Groundwater Flow Diagram

How does hard water impact me?

- *Require more soap to produce a good lather*
- *Leave deposits on glassware and utensils*
- *Leave hard water spots on vehicles*
- *May cause dry hair or skin*
- *Leave more soap scum on household surfaces*

How hard is the Mint Farm groundwater?

The groundwater is "moderate", ranging from 69 to 91 mg/L, compared to historically "soft" Cowlitz River water at approximately 27 mg/L. The difference is a change for customers, but the groundwater is similar in hardness to other local water systems.



Should I consider buying a water softener?

Installing a private softener is a personal choice. Some residential softeners use sodium to replace calcium and magnesium minerals, so customers should research the potential health impacts. Softened water can be more corrosive to plumbing, and is not recommended for watering plants, lawns and gardens due to the higher sodium content.

The City of Longview and Beacon Hill Water and Sewer District is committed to providing water that tastes, smells, and looks good, and is working diligently to resolve the temporary water quality issues affecting our customers.

If you experience problems or have concerns, visit www.mylongview.com to learn more about your water supply. You may also contact Beacon Hill Water & Sewer District at 360.636.3860.

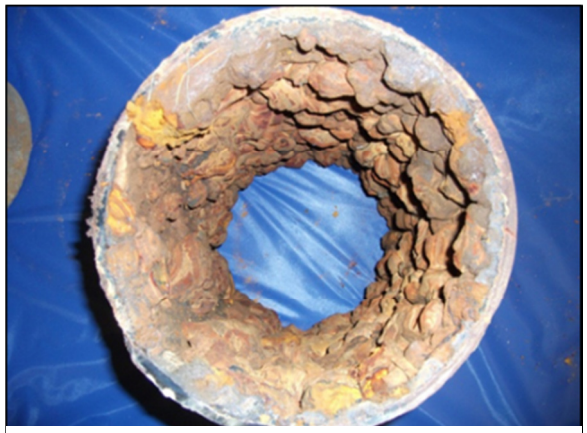
The City of Longview Washington

BEACON HILL WATER AND SEWER DISTRICT

DRINKING WATER UPDATE:

On January 31, 2013 the Mint Farm Regional Water Treatment Plant began distributing drinking water to City of Longview and Beacon Hill Water & Sewer District customers. The new treatment plant is reliably treating groundwater and producing high quality drinking water meeting all federal and state standards. However, some customers are experiencing objectionable taste, odor or color in their water.

In response to these water quality complaints, City staff and water quality experts are evaluating the issues to identify solutions. These issues are occurring predominantly in areas of town with older cast iron and galvanized water mains. Pipe flow reversal and the change in water chemistry between the Cowlitz River and the new groundwater are dissolving decades of hardened scale build-up inside the pipes.



Typical Scale Build-Up In Water Main