### What to do when your tap water is softened

**Descale appliances and taps:** After years with very hard water, it is a good idea to descale washing machines, dishwashers, coffee makers, kettles, taps, shower heads, toilets etc. Use an environmentally friendly descaling agent.

**Dishwashers:** Set the machine's softening system (if it has got one) to medium hard water (8-12 dH), typically under Settings. If you are using multi-function tablets, you should no longer have to add salt or dishwasher rinse.

**Washing machines:** A lot of new washing machines have an auto-dosing system, which means that you do not have to worry about using the right amount of washing powder. If your washing machine does not have such a mode, you should adjust the amount of washing powder you use to medium hard water (8-12 dH). You should no longer have to add fabric softener.

**Showering:** You may find that the softened water is more gentle on the skin and hair. You will not have to use as much soap as you used to, and you may be able to do without conditioner. If you use too much soap, you will find that the soap is harder to rinse off. Less soap = lower water consumption, which is good for you and the environment.

**Do not listen to myths:** There is no evidence that less calcium in the drinking water results in brittle bones, or that less flour in the water will result in more cavities.

**Private softening system:** We advise you not to use your own softening system due to the risk of excessive amounts of sodium in the drinking water.



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# Softened water for Frederiksberg - a reality

Our new ultramodern, energy-efficient waterworks do not merely soften the water, it also processes the water and is prepared for increasing quality, safety and volume demands.

#### The same softened water for everyone

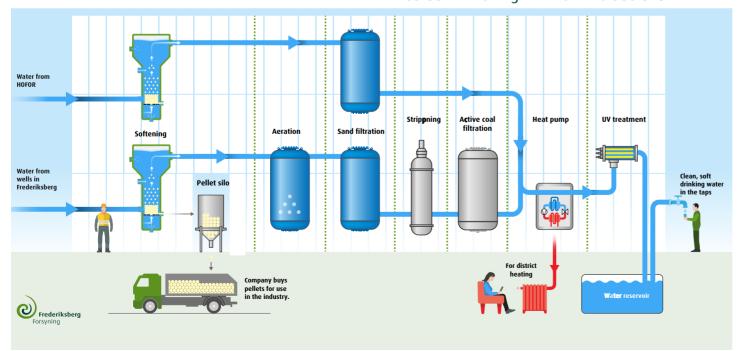
Previously, only 50 % of our tap water, namely the groundwater coming from wells in Frederiksberg, was processed at the local waterworks. In the future, all of our water will be processed at the new waterworks. This is to make sure that all citizens have access to the same high-quality, medium hard water (8-12 dH) – including the 50 % we will continue to receive from other wells on Zealand.

#### The softening process (the pellet method)

The calcium in the water is precipitated on a sand surface using lye (NaOH). This causes the calcium to crystallise around the sand particles, creating small calcium pellets that deposit and are then removed. This process increases the pH value of the water, and we therefore add CO<sub>2</sub> to the water to return the pH value to neutral. The many tons of calcium pellets we produce can be used for a number of industrial purposes, e.g. soil improvement.

## The remaining parts of the process

The water is aerated to make it fresh. Iron and manganese particles precipitate in the sand filter. Subsequently, the water is subjected to air-stripping and active coal filtration to remove any xenobiotics, including e.g. chlorinated solvents. Finally, the water is treated with UV light which kills bacteria.



# Advantages of softened water:

- Healthy, high-quality water, which to most will taste the same.
- You will see less limescale on installations, hot-water systems and appliances, making them more efficient and increasing their service life.
- More efficient systems and appliances use less power, which reduces CO<sub>2</sub> emissions.
- The amount of limescale on pipes is reduced, increasing their service life.
- You can spend less time removing limescale from e.g. the shower cubicle, shower head and kettle.
- You can use less soap and softener in the shower and laundry.
- Your clean clothes will seem softer without using the dryer or fabric softener, just as soft water will seem more gentle on the skin and hair.
- The waste water treatment plant will find less phosphorous (from cleaning agents) in the waste water.
- A hardness of 8-12 dH prevents the corrosion of pipes caused by too soft water.
- You are likely to save more money on cleaning agents etc. than you will pay for the more expensive softened water – good for you and the environment.