

News Article Hawke's Bay Today

Denmark best chlorine-free model

Expert says it would take up to 30 years to build comparable infrastructure in Bay

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Denmark uses groundwater and in 160 years they have never used chlorine. Jim Graham, Water NZ water quality adviser

Denmark is the gold standard for chlorine-free water, but it would take 20 to 30 years for Hawke's Bay to build water infrastructure that rivals it, an expert says.

Water NZ's principal water quality adviser Jim Graham said it would be possible for the region's councils to make water chlorine-free again, even after the Havelock North water crisis. But to do it will come at a cost. Graham presented a workshop at the Hastings District Council yesterday about how chlorine-free water supply in Hawke's Bay and nationwide can be achieved by using Denmark and the Netherlands as examples.

Having just returned from a trip to Denmark and Norway, he said Denmark was a suitable model of chlorine-free water supply.

"Netherlands use surface water, and treats it extensively. It is not a suitable model.

"Denmark uses groundwater and in 160 years they have never used chlorine, so we need to figure out how to provide water and get it up to that level."

Denmark used several measures to make their water safe for consumption and one of them was keeping their pipe leakage rates to a minimum, he said.

"We need to get the pipe leakage rates, water loss, in New Zealand down to a very low level. Currently in New Zealand it is 20 per cent. "In Denmark it is 2 per cent." He said "meticulous attention to detail" also needed to be paid to the way Hawke's Bay and New Zealand stores water for chlorine-free water supply.

"In Denmark they build their reservoirs out of stainless steel and put them inside.

"They also monitor pressure volume across all networks, they have smart units at every connection."

All of this obviously comes at a cost and Graham said the cost of water is paid by consumers in Denmark.

“In Denmark they pay \$3/cubic metre. In Hawke’s Bay they pay about 70 cents.”

He said having chlorine-free water supply was possible but it would take about 20 to 30 years to get Hawke’s Bay supplies up to the level of Denmark’s water supply.

“My job is to show that it is possible and this is what it would look like.

“I don’t decide what happens, that’s up to the local authorities.”

Hastings Mayor Sandra Hazlehurst said she wanted to ensure that every opportunity was taken to consider all the information so that, as a community, decisions could be made on the treatment of water into the future.

“We have experts like Mr Graham who can help our community decide whether it is feasible and safe to treat drinking water without chlorine.

“We may not be able to do it right now, but it is possible depending on cost and risks.”

She said there was no doubt that “all of us would like to be able to go back to having chlorine-free drinking water in our homes however the supply, above all else, must be safe”.

“We all need to understand the risks and the costs of supplying drinking water without chlorine, while ensuring that we never go through another Havelock North water crisis. We cannot and will not let people become ill from the water.”

Hastings was the first place in New Zealand to have fluoride added to its urban water as a means of preventing tooth decay, in 1954, but the water supply has been fluoride-free since the Havelock North gastro-outbreak in 2016.

The campylobacter contamination in August 2016 made 5500 people ill and was linked to the deaths of three people. It led to a government inquiry.

“The question is how we can keep water safe right through the network,” Hazlehurst said.