

HAWKE'S BAY TODAY

Groundwater security for drinking water supply hard to measure

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Water quality scientist Dan Deere gave evidence at the Havelock North Drinking Water Inquiry Stage 2 yesterday. Photo / Warren Buckland

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In the wake of the Havelock North water contamination, the treatment of drinking water has come under the spotlight and was discussed at the second day of Stage 2 of the Havelock North Water Inquiry yesterday.

The inquiry panel called water quality scientist Dr Dan Deere to the stand to discuss the Hastings District Council's new water safety and emergency response plans, and also to advise on the level of treatment that might be needed into the future.

Based in Australia, Dr Deere was engaged by the Hastings council after the first stage of the inquiry to assist with the district's microbial and water quality risk management.

Because groundwater drinking water supply sources, such as those in Hastings, were difficult to monitor in real time, there could be no guarantee that potential

contamination had occurred, so at least one form treatment was the most practical option to ensure safety of supply, Dr Deere told the panel.

Historically, Hastings and Napier had been areas where water treatment was not considered absolutely necessary due to the concept that the water was coming from a secure, pure source.

The Havelock North contamination event, however, meant such security could come under further scrutiny, and have national implications, as the inquiry moved towards releasing its final findings and recommendations in December this year.

Dr Deere said although New Zealand accepted classing groundwater sources as secure, in Australia, for example, this standard was not accepted.

"As a microbiologist I could not condone a secure groundwater status unless there was special dispensation from a health authority.

"Secure groundwater needs at least one disinfection barrier."

He said a lot of money had been spent trying to understand what was happening in the Brookvale area, yet it was still unknown exactly where last August's contamination came from.

"We know you can have secure groundwater in theory, but you can't be sure a bore has not had failings or would not be affected by nearby activities."

While chlorine was a first line of defence, it did not protect against protozoa such as cryptosporidium, so UV treatment, currently installed at Brookvale Bore 3 supplying Havelock North and planned for other bores servicing Hastings, was another consideration.

Dr Deere said all the Hastings bores were close to pollution sources, including sewers, which he had not seen anywhere else in the world including Third World countries.

Protozoa was less of a risk than bacteria and viruses, but strong evidence would be needed that the source could be managed properly, before any decision not to install UV treatment, he said.

Although cost was a factor with this form of treatment, he said it could work out to be less expensive than ongoing regular testing.

Earlier in the day, group manager asset Craig Thew returned to the stand and noted that in terms of aquifer matters and wider risks there was a deeply entrenched view in the community that the aquifer was pristine.

"It's not quite like that and we need to understand that more and where the risks lie."

At the same time there was an issue around whether drinking water should continue to

At the same time there was an issue around whether drinking water should continue to be sourced from the Brookvale area at all.

Panel member Anthony Wilson questioned whether Brookvale was needed, or whether the piping network could be expanded from other bores in the Hastings district.

He also asked whether the council had a timetable for making a decision on whether Brookvale Bore 3 would continue to be used.

Mr Thew said there was still more work to be done on that matter and more information would be available for further hearings in August, when more high level issues with national implications would be considered.