

Study finds no contaminants in Niue's groundwater

Written by Administrator

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A recent analysis of Niue's groundwater that tested for selected chemical and organic pollutants has found that the country's water supply is very good and well within global standards.

The study focused on all 16 boreholes used to pump Niue's drinking water, three monitoring boreholes located on the island's central, northern and southern areas and a borehole found on Vaiea farm.

Due to local concerns of pollution from pesticides like paraquat, groundwater was tested for traces of all pesticides used on the island. The study found that there was no contamination from pesticides with levels recorded well within the United States Drinking Water Standard.

Water was also tested for selected chemicals (calcium, magnesium, sodium, chloride, sulphate, nitrate as NO₃, iron, manganese, lead and copper).

The study found that there was no contamination from nitrates, usually caused by fertiliser runoff or pollution from animal and human waste; copper, which can cause gastrointestinal problems at high concentrations; lead, which has serious effects on human health; and manganese, which effects pipes and other water distribution systems.

Other chemicals tested for are naturally occurring in Niue's limestone geography and posed no health threat. It was found though, that the high mineral content of Niue's groundwater meant that the hardness of the water ranged from hard to very hard.

The groundwater analysis in Niue was successfully conducted in partnership between the Niue Department of Health, the Pacific Islands Applied Geoscience Commission (SOPAC) and the World Health Organisation (WHO).

Recommendations included the continuation of Niue's drinking water safety planning framework and that it be implemented within the larger framework of Integrated Water Resources Management (IWRM) to ensure everyone from the community to cabinet understand their responsibility and contribute to protecting Niue's water resource.

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