

**WRITTEN QUESTION TO THE MINISTER FOR THE ENVIRONMENT
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ANSWER TO BE TABLED ON TUESDAY 10TH OCTOBER 2017**

Question

Can the Minister outline and reference what evidence he has, particularly in regard to nitrate levels, to assure the public that Jersey's mains water supply is safe for consumption for:

- (a) adults and children over the age of 2;
- (b) pregnant women;
- (c) children under the age of 2;
- (d) breastfed babies under 6 months whose mothers drink Jersey tap water; and
- (e) formula-fed babies under 6 months whose main source of nutrition is powdered milk made with boiled Jersey tap water?

Answer

Jersey's mains water supply is provided by Jersey Water, is governed by the Water (Jersey) Law 1972, and regulated by my department. The law includes physical, chemical and bacteriological parameters and limits for water to be deemed wholesome, meeting European Union Directives on water quality.

Jersey Water monitor the quality of their supplies frequently and test thousands of samples taken throughout the year from water sources, treatment works, storage reservoirs and customers' taps. Their monitoring programme is discussed with my department and agreed by me, and is based on health parameters adopted across the world. The samples are taken according to agreed protocols and are tested in both Jersey Water's own laboratory and suitably accredited external laboratories. Results from this monitoring are supplied to my department. In addition other samples are taken by my department from time to time.

The results of Jersey Water's sampling is published and available on their website, <https://www.jerseywater.je/water-quality/water-quality-report/>

In 2016 of 19,997 regulatory analyses carried out on treated water only 2 were outside the regulatory parameters. Neither of these posed a risk to health. On the very rare occasion there is a regulatory breach, Environmental Health within my department is notified immediately and investigations are undertaken. If there is deemed to be a health risk the public is informed by Environmental health in consultation with Jersey's Medical Officer of Health.

In relation to Nitrate levels, throughout 2016, and for the third consecutive year, nitrates in the treated water supply complied with the regulatory limit of 50mg/l. This is in spite of levels in streams and raw water sources exceeding this limit during part of the year. Nitrate levels are subject to a RAG (Red /Amber/Green) rating and Environmental Health is kept aware of the nitrate levels leaving Augrès and Handois treatment works. If levels approach the regulatory limits the frequency of reporting is increased. Environmental Health will inform the public should there be a potential or perceived health risk and advise on any action required. The level to date in 2017 has not exceeded 40 mg/l. RAG rating is currently green.

The UK Health Protection Agency (now Public Health England) has reviewed and reaffirmed its health risk assessment in relation to nitrate in drinking water. This health advice has not changed and remains as follows:

there is no concern for adult human health from consumption of drinking water with nitrates up to a level of 100 mg/l. (The regulatory limit is 50 mg/l).

However, bottle-fed infants are considered to be more susceptible to the effects of nitrates. Therefore there may be concern for the health of bottle fed infants consuming water failing the nitrate standard of 50 mg/l in certain circumstances (see footnote).

There is no specific advice for expectant or nursing mothers, however it would be prudent to follow the same advice as that for bottle fed infants. It should be noted that there has not been any recorded incident of methaemoglobinaemia in Jersey and the last recorded case related to nitrates in the UK was in 1972.

The current drinking water standard for Nitrate is 50 mg/l (milligrams per litre), consistent with the UK and other EU countries. This EU standard is based on the World Health Organisation's guideline value for drinking water, which is also 50 mg/l. This level is intended as a safeguard against methaemoglobinaemia (blue baby syndrome).

I am pleased to be able to state that for all parameters, including nitrates, Jersey's mains water supply is safe for consumption by all those in the categories mentioned in the question.

Footnote:

Public Health England advice note on nitrate is that:

Bottle-fed infants up to the age of 6 months, and in particular those under 3 months, are considered to be most susceptible to infantile methaemoglobinaemia (blue baby syndrome) caused by high nitrate level. Therefore, when nitrate concentrations exceed 50 mg/l as NO₃, it may be necessary for bottle fed infants up to the age of 6 months to be given ready-made liquid formulae or feeds made from an alternative low nitrate water supply. On the basis of WHO advice these precautions are recommended when the high nitrate water supply is also of uncertain microbiological quality or it is known to be microbiologically contaminated. The general population should not consume water when nitrate concentrations exceed 100 mg/l as NO₃ or nitrite concentrations exceed 3 mg/l as NO₂⁻ in the short term.