

**WRITTEN QUESTION TO THE MINISTER FOR THE ENVIRONMENT  
BY DEPUTY S.M. AHIER OF ST. HELEIR  
ANSWER TO BE TABLED ON TUESDAY 24th MARCH 2020**

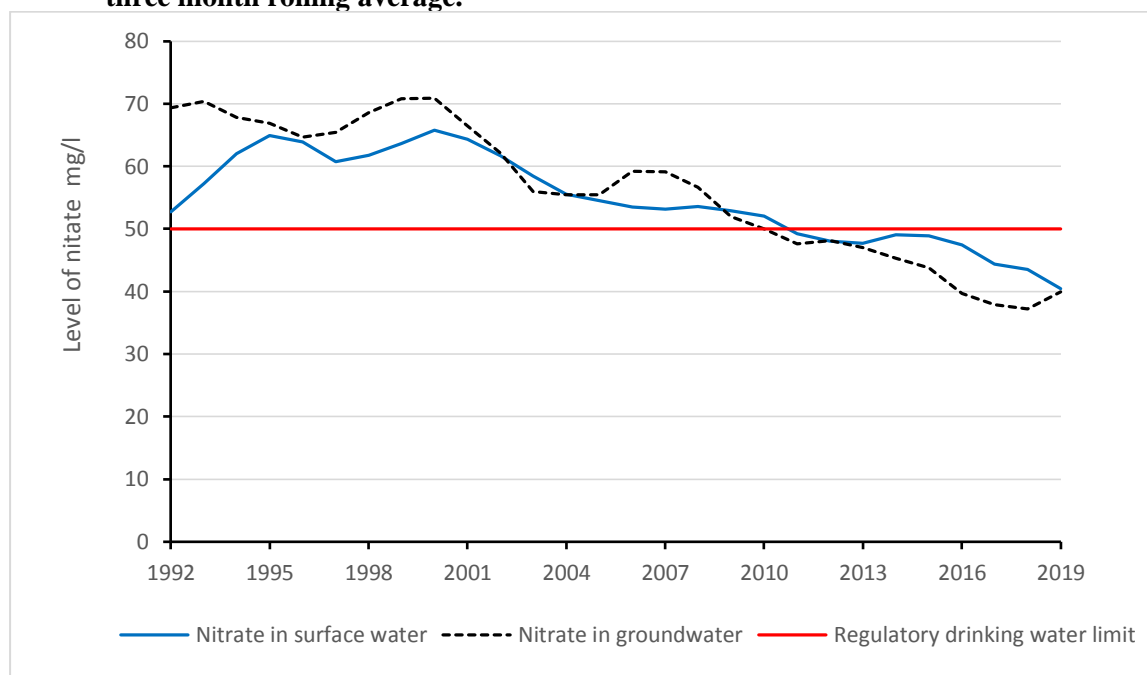
**Question**

Will the Minister advise the Assembly of the current raw water quality in Jersey, including the levels to be found of nitrates and pesticides, as well as those of Oxadixyl, Azoxystrobin, Glyphosate, Metobromuron and Ethoprophos; and will he also advise how often testing of raw water quality is carried out?

**Answer**

The annual average levels of nitrate in the Island's surface and groundwater has reduced since 2000 (Fig. 1). Average nitrate levels as at 31 December 2020 were 38 and 40 mg/l respectively. Almost two fifths of all samples taken from surface water streams exceed the regulatory drinking water limit of 50 mg/l. The public water supply, however, remains safe and compliant due to management safeguards undertaken by Jersey Water (that includes the blending of separate sources to achieve required standards). Although levels in groundwater are reducing, approximately half of the 3200 private water supplies (groundwater boreholes and wells) in the island still exceed the recommended 50 mg/l drinking water limit<sup>1</sup>.

**Fig. 1 Annual nitrate (mg/l) levels in surface streams and groundwater compared with the local and EU drinking water limit (50 mg/l). The data is up to 31 Dec. 2019 and is displayed as a three month rolling average.**



<sup>1</sup> Hence the importance of the advice to the owners and users of private water supplies public issued by Environmental Health <https://www.gov.je/SiteCollectionDocuments/Environment%20and%20greener%20living/ID%20Private%20Water%20Supplies%20-%2020190702%20CLeM.pdf>

The number, maximum and average level of detections of the required active ingredients are given in the Table 1. These active ingredients are primarily used by the agricultural sector, although glyphosate is also used by the public.

Active ingredient	Water type	Number of detections	Average detection level (µg/l)	Maximum detection level (µg/l)
Azoxystrobin	Groundwater	2	0.25	0.25
Glyphosate	Groundwater	5	0.18	0.27
Azoxystrobin	Surface water	5	0.26	0.64
Ethoprophos	Surface water	20	0.89	5.92
Glyphosate	Surface water	44	0.56	5.00
Metobromuron	Surface water	31	0.21	1.70
Oxadixyl	Surface water	65	0.18	0.33

**Table 1 The number, maximum and average levels of certain active ingredients detected in ground and surface water in Jersey during 2019<sup>2</sup>**

Historically, Environmental Protection have utilised data collected by Jersey Water to monitor pesticide levels in surface water streams and reservoirs. The sampling utilises quarterly pesticide import figures from the Island merchants to ensure that all imported (and used) pesticides are captured in the monitoring.

During 2019, Jersey Water changed their sampling methodology to be a more risk based approach. Sampling of the raw water streams ceased and sampling concentrated on raw water abstraction points and water treatment points taken each week. The benefit for the water company is that a broader suite of pesticides are covered and that a quicker laboratory turn-around is achieved. This means that the company can react more quickly to emerging issues in order to keep the public water supply safe. If higher levels are recorded in the abstraction points, then more detailed sampling of streams to ‘chase out’ the cause will be undertaken. The saving generated by Jersey Water in their change in monitoring regime has been reallocated towards other water quality initiatives including a catchment based project this year. Environmental Protection have no legal powers to force the Water Company to monitor raw waters in the way they have previously done it, only on the treated water side.

This change means that the data set of stream sampling cannot be used. Environmental Protection are therefore unable to react as before; particularly in keeping the farmers updated on the number of detections so that they could change behaviours through the Action for Cleaner Water Group. A Government Plan funding bid will be requested to restore this monitoring, as well as to fund other elements of the Island Water Plan delivery.

Environmental Protection monitor surface water quality (including nitrates) at eight sites every month across the Island (one in each water management area WMA). Each quarter, over 200 parameters, which have been identified either Europe wide or by Nation as being hazardous or harmful to the environment (including pesticides), are also analysed.

Environmental Protection monitors groundwater quality (including nitrates) currently at up to 47 sites around the island during May and November each year. At eight sites (one in each water management area WMA) additional water samples are collected, which are sent to NLS and analysed for the same parameters as for surface water<sup>3</sup>.

Nitrates and pesticides are key pressures identified in the report ‘Challenges to the water environment of Jersey’ which are being addressed by the ‘Water Management Plan 2017-2021’<sup>4</sup>. They are therefore the focus of actions undertaken by partnership working in the Action for Cleaner water Group<sup>5</sup>.

<sup>2</sup> These represent levels above the detection limits of laboratories and are not breaches of drinking water or environmental limits.

<sup>3</sup> The total cost of both surface and groundwater monitoring by Environmental Protection is £18k per year. In 2019, some sampling rounds (a portion of the £18k) had to be cancelled due to budget pressures.

<sup>4</sup> <https://www.gov.je/Government/Pages/StatesReports.aspx?ReportID=2147>

<sup>5</sup> Members include GHE Officers and representatives from Jersey Water, agricultural industry (potato and dairy) and pesticide merchants.