

NATIONAL ASSEMBLY

FOR WRITTEN REPLY

QUESTION NO 539

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539. Mrs D van der Walt (DA) to ask the Minister of Water Affairs and Forestry:

- (1) What are the (a) effects of (i) phosphates and (ii) nitrates on water sources and (b) principal sources of (i) phosphates and (ii) nitrates that find their way into South Africa's water sources;
- (2) whether the sewage treatment plants are effective at removing (a) phosphates and (b) nitrates from water; if not, why not; if so, how was this conclusion reached;
- (3) whether her department has considered banning phosphates in (a) detergents and (b) soaps; if not, why not; if so, what are the relevant details;
- (4) whether any studies have been conducted to determine the level of phosphates in the water; if not, why not; if so, what are the findings? NW1185E

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REPLY:

(1)(a)(i)
and

(1)(a)(ii) Phosphates and nitrates (nutrients) in water resources lead to eutrophication.

(1)(b)(i)
and

(1)(b)(ii) Various sources contribute to the increase in phosphate and nitrate levels in our water bodies. These are partially or untreated sewage, agricultural run-offs containing fertilizers, detergents rich in phosphate and nutrient rich industrial effluents. There is, however, a certain amount of nutrients that is also from natural sources.

(2)(a)
and

(2)(b) Effective removal of phosphates and nitrates occurs at a waste-water treatment plant if it is designed to remove them and if the plant is operated and maintained sufficiently for nutrient removal. The Department conducted an audit of waste-water treatment plants to confirm this.

(3)(a)
and

(3)(b) No. Studies have indicated that phosphate banning from detergents and soaps would not be a feasible option for the South Africa. However, the Water Research Commission (WRC) is investigating low phosphorus detergents. This would indicate whether introducing low phosphorous detergents will result in cost effective measures taken to protect the water resource environment.

(4) Yes, the levels of phosphates and nitrates are being continuously monitored in State owned dams and rivers. Findings show that there is a high prevalence of nutrients, especially phosphorous, in South Africa's freshwater resources.