

GROUNDWATER REPLENISHMENT TRIALS, BEENYUP

2657. Hon Alison Xamon to the Minister for Transport representing the Minister for Health

I refer to the groundwater replenishment trials at Beenyup, and ask —

- (1) Are levels of carcinogenic NDMA N-Nitrosamines in wastewater monitored for the Beenyup Groundwater replenishment treated wastewater trial?
- (2) If yes to (1) —
  - (a) what levels of NDMA N-Nitrosamines will trigger greater levels of analysis and monitoring; and
  - (b) what management measures are in place to monitor, mitigate and prevent NDMA N-Nitrosamines in excess of Australian Drinking Water Guidelines, being reinjected into the Leederville aquifer?
- (3) What method for monitoring NDMA N-Nitrosamines has been developed?
- (4) What are the current reporting levels for NDMA N-Nitrosamines required under the Australian Drinking Water Guidelines?
- (5) What concerns does the Minister hold for relaxing the allowable level of NDMA N-Nitrosamines in treated wastewater for groundwater replenishment from 10ng/litre to 100ng/litre as proposed by the draft revised Australian Drinking Water Guidelines?

Hon SIMON O'BRIEN replied:

- (1) Yes
- (2)
  - (a) Concentration greater than 80 percent of the Draft Australian Drinking Water Guidelines 2010 (i.e. 80 ng/L).
  - (b) Measures in place include:
    - implementation of the 12 elements of the risk management framework of the Australian Guidelines for Water recycling: Managing Health and Environmental Risk (phase 2) Augmentation of Drinking Water Supplies (2008), including the hazard analysis, a critical control points system;
    - recycled water with N-nitrosodimethylamine (NDMA) above 100ng/L will be diverted away from injection;
    - optimisation of the Beenyup Advanced Treatment Plant chloramination time to minimise NDMA formation; and
    - a Memorandum of Understanding between the Water Corporation and the Department of Health for the Ground Water Replenishment Trial (GWRT).
- (3) Solid Phase Extraction (SPE) followed by Gas Chromatography (GC) and quantification by mass spectrometry (MS) with electron ionization (EI).
- (4) Health value is 100 ng/L based on Draft Australian Drinking Water Guidelines 2010.
- (5) No concerns. Typical analytical reporting detection level is at 1 ng/L.