

PUBLIC



MINISTER FOR ENVIRONMENT; WATER

Our Ref:42-0532E

Hon Brian Ellis MLC
Chairman - Standing Committee on Environment and Public Affairs
Parliament House
PERTH WA 6000

Dear Chairman

PETITION NUMBER 94 - WATER USE IN KARRATHA

Thank you for your letter dated 16 February 2011 regarding the above petition tabled by Hon Kate Doust MLC.

I acknowledge the petitioners' concerns about the use of high value drinking water for dust suppression activities.

Water for the West Pilbara scheme is sourced from the Harding Dam near Roebourne and the Millstream aquifer 100km to the south. The maximum scheme capacity from the combined sources is 15 gigalitres per annum (GL/a).

Rapid growth in mining has meant increased demand on the West Pilbara water supply scheme. Water availability for the coastal towns of the Pilbara is problematic. Water supply sources rely on cyclones which vary from year to year, and there may be many consecutive years without rain followed by several wet years.

Developing and securing water supplies in the Pilbara was identified as a priority in the Department of Water's (DoW) *Pilbara Regional Water Plan (2008)* and has since been progressed as a State priority by the Government.

Given the variable water availability and the growing needs, the Water Corporation (Corporation) and the DoW have been active in working with both industrial and domestic water users to significantly improve water use efficiency. In recent years, mining companies have been successful in reducing their water use per tonne of product at port, however the increasing tonnages ultimately means more water will be required.

Currently approximately 35% of the water used in the West Pilbara water supply scheme is for dust suppression at ports. The majority of water use in the West Pilbara is for residential, commercial and industrial uses, which does include some low value use such as dust suppression and construction work. Although undesirable, the use of

potable water by the construction industry is short term and necessary to support growth in the Pilbara.

The Corporation has implemented the H₂ome Smart program across the Pilbara which is focusing on improving residential water efficiency. Combined with infrastructure upgrades that are underway, it is anticipated that a 1.2 GL/a saving in residential use can be achieved.

Small volumes of potable water are occasionally provided to the oil and gas sector for domestic use offshore.

Planning for an additional supply source for the West Pilbara water supply scheme is underway, and construction of a 6 GL/a desalination plant is about to commence. This is due to be commissioned in 2013 and will provide high quality water to domestic users in Karratha.

The feasibility of an additional 10 GL/a supply source from Bungaroo Creek, south of Karratha, is being investigated by Rio Tinto Iron Ore (RTIO). There is the potential to deliver this water to the West Pilbara water supply scheme in order to meet the future growth requirements of the industrial and residential sectors. It is anticipated that this project will supply water to the scheme in early 2013, subject to a final investment decision by RTIO.

The Harding Dam and Millstream Aquifers are currently full which will provide adequate water supply until commissioning of the desalination plant and/or the Bungaroo source.

In addition the Corporation is considering the feasibility of establishing a dedicated non potable supply network to meet future industrial water needs. This would significantly offset demand for high value potable water and support the future development of Karratha as a regional city. The Corporation has approval from the Shire of Roebourne to establish a waste water re-use facility in Karratha, which will provide high quality treated waste water for use on road construction, dust suppression and future developments.

The Government recognises that mining activities can pose risks to water resources and affect water quality and quantity if not appropriately managed. Accordingly, mining proposals are assessed to ensure that they do not pose an unmanageable risk to water resources. While it is acknowledged that there are substantial water volumes dewatered for mining activities, there are measures in place to ensure that public drinking water supplies are not impacted.

I share the petitioners concerns that water needs to be well managed in the Pilbara and you can be assured that the Government is currently addressing the issues raised.

Yours sincerely



**HON BILL MARMION MLA
MINISTER FOR ENVIRONMENT; WATER**

14 MAR 2011

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