Belmont Drought Response Desalination Plant

Comments in Response to Exhibition

Submissions and Amendment Report

Section 2.6.4 (Alternatives to the proposal)

The response given under Section 2.6.4.2 to Submission 13, Item 4 does not make any reference to the suggested use of renewable power generated by wind turbines (similar to the Kurnell Desalination Plant) other than Hunter Water *will consider* purchasing renewable energy certificates, or on-site renewable options to *partially* offset (power) consumption

The power demand will increase from 3 MW (EIS Section 2.7.3) to 6.7 MW (calculated from Table 3.15) with the doubling of the desalination plant's capacity. The case presented in EIS Submission 13, Item 4 for increasing the (total) renewable energy used by Hunter Water to the equivalent of that required by the desalination is now paramount. This is further discussed in Section 3.5.2.9 comments below.

Section 3.5.2.5

Operational phase "social" impacts are limited to the comment that the Hunter Region residents would benefit from the improved water security, and apart from noise and vibration, traffic and transport, and visual amenity (covered in the EIS), that no other (social) impacts were identified.

Notwithstanding the statement in Appendix B (Updated Project Description) Section 1.7 – that the quantum of any impact to customer prices will be determined by IPART should the project proceed, it is more than likely that Hunter Water would (should) have an indicative range of the cost impacts to consumers. These impacts would be for both the "construct and operate" stage, and the "stand down and mothball" stage. As a significant social impact, some indication even in the most general of quantum, is warranted.

Section 3.5.2.9

Greenhouse gas emissions for the 30 Ml/day amended proposal have increased by 70% compared to the previous 15 ML/day proposal. This further strengthens the case for inclusion of renewable energy to completely provide the 6.7 MW (calculated from Table 3.15) required for the desalination plant's operation. This could be by either a direct connection to a renewable source, or as a new offset additional to that which already exists/or is planned if the desalination plant construction and operation did not proceed.

Appendix F – Concept Design Drawings

Direct Ocean Intake Plan (300/15830) does not show where the 121 metre length of the 55 diffuser ports are located on the original (1992) section of the existing WWTW outfall, hence it is not clear what the minimum distance is between the Intake Head Structure and the closest diffuser port.

Appendix M – Brine Discharge Modelling Report

Section 4.4.2 and Section 6 (Conclusions)

The operational risk of outfall diffuser discharge entering the sea intake structure is rated as “low”, and within acceptable (toxin) limits 90% of the time based on the modelling.

This indicates that there is some possibility of an event(s) where human health acceptable toxin limits could be exceeded through some degree of recirculation of diffuser discharge.

There is no reference to sampling, testing or monitoring in the water treatment process (ref Appendix D – Updated Project Description, Section 1.1.2). Therefore it is not clear how the risk of an outfall discharge contamination event will be managed should it be realized.

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