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Contact: Scott Martin

Sheelagh Laguna
Department of Planning & Environment
PO Box 39
SYDNEY NSW 2001

Dear Sheelagh

Subject: Woodlawn Bioreactor MOD-7 Operation of Reverse Osmosis Plant (MP10_0012 - Mod-7)

Thank you for the opportunity to provide input into the application for the abovementioned development proposal.

Upon review of the Woodlawn Bioreactor Modification 7 Report prepared by Element, Council would like to raise the following matters.

Permeate Quality and Brine Storage

Council notes that the anticipated quality of the permeate meets the ANZECC 2000 Irrigation Guidelines for all markers except for boron. Firstly, we assume this is the current accepted generic guideline for irrigation quality. It is further noted that the prevailing soil conditions naturally lack boron, therefore an excess of boron in the resulting permeate has been justified by the Applicant. Council is concerned that this approach of assessing the quality of the permeate against a set of guidelines does not assess the quality of the permeate against the given site soil conditions and that irrigation capability has not been demonstrated. No details have been provided on the soil conditions at the irrigation site, capacity of the soil for sustainable irrigation and expected impact on the soil over time. Furthermore, the cumulative impact of an excess of boron in the soil over time has not been considered.

Additionally, Council is not convinced that the proposed method of storing and managing brine is a robust long-term approach, but rather relies upon an interim methodology that will require review 12 months after commissioning. For clarity and transparency Council would like to see more definitive disposal options to be presented for a longer-term solution to be developed before committing to this treatment methodology.

Council is also concerned that over time, the nutrient levels of the dams will continue to increase in concentration with the continued collection of brine, which would pose an environmental risk should discharge occur.

Irrigation Scheduling

Council is concerned that the proposed methodology in relation to the scheduling of irrigation practices is too generic and does not appear to factor in site factors such as climate, soil nutrient levels and soil moisture levels.

The irrigation scheduling needs to demonstrate that it does not have an impact on the soil and is based on soil moisture levels and nutrient loading rather than a set irrigation rate throughout the year. This would protect the site against overirrigation and minimise nutrient buildup in the soil through appropriate irrigation rates and optimum vegetation growth. In such a system, it could be reasonably expected that prevailing conditions throughout spring and summer, where ambient and soil temperatures would typically permit higher growth rates, could allow for greater rates of irrigation over and above 1.5mm per day.

The demonstration of an analysis of soil capability and prevailing weather conditions should be undertaken to inform an appropriately managed irrigation scheduling system based on given soil, environmental and climatic conditions.

Should you have any questions in relation to the above, I can be contacted on (02) 4823 4480.

Yours faithfully

Scott Martin
Director Planning & Environment