

BEFORE THE HEARING PANEL

IN THE MATTER

the Resource Management
Act 1991 (the Act)

AND

IN THE MATTER of applications by Tararua District Council to Horizons Regional Council for application **APP-2005011178.01** for resource consents associated with the operation of the Eketahuna Wastewater Treatment Plant, including a discharge into the Makakahi River, a discharge to air (principally odour), and a discharge to land via pond seepage, Bridge Street, Eketahuna.

SUPPLEMENTARY REPORT OF DEBORAH RYAN,

AIR QUALITY

4 April 2017

A SUPPLEMENTARY COMMENT

- 1 My full name is Deborah Anne Ryan.
- 2 I prepared the S42A report on air quality matters, which has been pre-circulated and I understand will be taken as read.
- 3 I have prepared the following evidence in response to Direction # 2, which asked three questions of me.

QUESTION 1: Do the current ponds meet the odour conditions of the One Plan permitted activity rule 14-16

REONSE TO QUESTION 1:

- 4 Rule 14-16 of the One Plan states:

The *discharge*[^] onto or into *land*[^] of human effluent pursuant to ss15(1) or 15(2A) RMA for the purpose of storing or treating the effluent in ponds and any ancillary *discharge*[^] to air pursuant to s15(2A) RMA.

is a permitted activity subject to conditions, including condition c) relating to odour as follows:

c) The *discharge*[^] must not result in any offensive or objectionable odour beyond the boundary of the subject property.

- 5 In my view, based on the lack of historical odour complaints and a lack of submissions relating to adverse effects from offensive or objectionable odour from the wastewater treatment ponds at Eketahuna, the current ponds would be deemed to comply with condition c) above. My view is further supported by anecdotal comment from the Horizons' monitoring officer when we discussed historical performance during our site visit. The officer indicated that he had never detected offensive or objectionable odours from the pond operation at Eketahuna.
- 6 The risk of incidents with the potential for offensive and objectionable odours, such as from upset conditions, is minimised though good management. In particular, maintenance and operation that maintains aerobic conditions in the ponds. These aspects are addressed in the recommended conditions.

QUESTION 2: Please provide a comment on whether there are likely to be any new odour issues arising from either of the two overland flow/ wetland options that are proposed? If there are, how should they be managed?

REONSE TO QUESTION 2:

- 7 As at paragraph 24 of my report, I state the key aspects that require management and maintenance to minimise or avoid the potential for adverse effects from odour. I include as one of those aspects at b) maintaining the wastewater/effluent in an aerobic state throughout the ponds and the additional treatment stages. Additional treatment stages would include any option for disposal via land. If the wastewater has a relatively low biological oxygen demand (consistent with pond

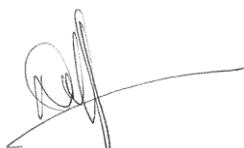
treated wastewater); has a positive dissolved oxygen (DO); and is not allowed to stagnate within the land disposal system, then the potential for adverse effects from odour associated with this activity is very low.

- 8 Dissolved oxygen within the ponds (and wastewater) is already addressed in the recommended conditions of the air permit. Maintenance of the land disposal system to ensure that there is no stagnation could be addressed in the Odour Operation and Management Plan (OMP), also required under the recommended conditions of the air permit. For clarity, the wording of the condition could be expanded to specifically indicate that the OMP should incorporate measures necessary to manage the potential for odour from any land disposal/treatment option.

QUESTION 3: Please provide a comment on the TDC Engineers (John Crawford) concern and alternative suggestion about dissolved oxygen DO monitoring in paragraphs 11.33 – 11.39 of his evidence.

REPONSE TO QUESTION 3:

- 9 In my view, the critical element is that dissolved oxygen is maintained in the pond system to avoid anaerobic conditions; how this is to be achieved is largely up to the permit holder. Provided the DO monitoring frequency and timing put in place by the permit holder achieves maintenance of the required DO, then I agree that continuous DO monitoring is not a necessary requirement. This is particularly so given the size and scale of the Eketahuna wastewater treatment operation.



Deborah Ryan
4 April 2017