



15 June 2017

The Environmental Regulation Department
Greater Wellington Regional Council
PO Box 41
Masterton 5840

Dear Sir/Madam

**Re: Resource Management Act 1991
Submission on Carterton District Council Wastewater Treatment and Wastewater
Management Facilities application for resource consent to discharge contaminants
to land, water and air
WAR 160341**

Submitter: Dr Jill McKenzie, Medical Officer of Health on behalf of Regional Public Health
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Regional Public Health serves the greater Wellington region, through its three district health boards (DHBs): Wairarapa, Hutt Valley and Capital & Coast, and is based at the Hutt Valley District Health Board.

We work with our community to make it a healthier safer place to live. We promote good health, prevent disease, and improve the quality of life for our population, with a particular focus on children, Māori and working with primary care organisations. Our staff include a range of occupations including: medical officers of health, public health advisors, health protection officers, public health nurses, and public health analysts.

Reasons for submitting

The reason for this submission is to ensure that the public health risks associated with the proposed activity are considered. The Ministry of Health requires us to reduce potential health risks by various means, which includes making submissions on resource consent matters. The submitter is **neutral** and neither supports nor opposes the application.

Regional Public Health could not gain an advantage in trade competition through this submission.

Regional Public Health **supports** the Carterton District Council's policy of progressively reducing discharges into water ways in a sustainable and affordable way. Regional Public Health recognises that poor water quality is one of the key environmental factors contributing to reduced health and well-being, and disparities in health outcomes in the Wairarapa. We also note that poor water quality can have adverse effects on human health through the gathering and consumption of Mahinga Kai. Therefore improving water quality by removing wastewater discharges will support improved public health.

We note that the proposal for discharge of tertiary treated wastewater is unlikely to result in direct physical health harms. This is on the basis of discharges being limited on average to 30 days per year and predominantly occurring while the Mangatarere Stream is at three times median flow, thus limiting the likelihood of public exposure via recreational use of waterways. However, in terms of fully assessing the environmental effects of the discharges, it is important to consider 'health' as being broader than merely the physical effects on people. In particular, effects on Māori health include physical, mental, whanau, and spiritual wellbeing (as described by Professor Mason Durie in Whaiora: Māori Health Development, 1998). Regional Public Health recognises non-physical impacts on health as valid and requiring consideration in terms of the Resource Management Act 1991. Although it is possible to reduce the potential physical health risks from microbes in direct wastewater discharges to waterways e.g. via use of warning signage, this does not necessarily apply to effects on the other aspects of health. The discharge of human effluent to waterways is of significance to iwi and can reasonably be expected to have more than just physical implications for iwi health. Regional Public Health notes that iwi are being consulted on this proposal.

Regional Public Health **supports** the concept of Integrated Catchment Management and recognises that the Carterton Wastewater Treatment Plant should be considered an integral part of the wider Wairarapa Valley catchment and that the wastewater treatment plant discharge represents a point source discharge.

Regional Public Health note the council's commitment for ongoing work to reduce the wet weather flows via an inflow and infiltration work programme. This work programme is critical in achieving the aim of removing wastewater discharges to waterways. The work is also important with council's predictions of increasing inputs to the wastewater system due to increased urban development.

Regional Public Health **requests** consent conditions be imposed requiring the applicant to maintain appropriate public warning signage on the boundaries warning that treated wastewater is discharged to land and may be present on the site. Regional Public Health also **requests** that a consent condition be imposed requiring the applicant to maintain appropriate public warning signage at the proposed discharge point on the Mangatarere Stream.

Regional Public Health notes that over time the requirement will only be for occasional discharges of wastewater to the waterway. There is a potential that community groups may want to be notified regarding the timing of these intermittent discharges. As a result there may be a demand for direct notification to these interested groups of any discharges, in addition to the use of warning signage. Regional Public Health **recommends** that the proposed advisory group consider whether there are

any parties in addition to regulatory agencies who may wish to be informed about intermittent discharges in the future.

Regional Public Health **requests** that a consent condition be imposed requiring that a formal public complaints procedure be established.

It is noted that discharge to land will take place subject to the provisions of the Wairarapa Combined District Plan Rule 4.5.2(m)(ii)(a) *Disposal of wastewater from a municipal wastewater treatment plant*, which provides a setback distance of 25 metres from the property boundary for spray irrigation of treated wastewater with *E. coli* concentrations with a median less than 100cfu/100ml, provided application methods and parameters comply with the provisions of the Combined District Plan. However, we note that Carterton District Council holds a consent variation to these provisions allowing irrigation up to wind gusts of 12 metres/second. Regional Public Health is satisfied that this variation is appropriate and is likely to ensure that aerosols (including associated odour) do not cross boundaries to adjoining properties.

Regional Public Health **requests** that it be a condition of any consent issued that discharge to land of treated wastewater effluent is undertaken by means of a deficit irrigation regime. Deficit irrigation is a mitigation method to ensure there is no impact on groundwater quality. However, Regional Public Health **requests** that appropriate monitoring conditions are imposed to review that the discharge is not adversely impacting on groundwater. The AEE notes on page 29 that there has been a “slight” increase in nutrient contents from groundwater monitoring but it is too early to determine any trend. It is important that trends are identified early as the full impact of land discharge impacts on groundwater lag behind the input of the contaminant. Therefore it can take some time for contamination to reduce following restriction of discharges to land.

Regional Public Health does not oppose the proposed timeframe of the Stage 2 commissioning programme (construction of on-site Sequential Batch Reservoirs and the installation of a second centre pivot and extension of the onsite irrigation), set down to be completed by 2025, provided that they are set as conditions of any consent granted.

We believe however that health risk associated with the discharge of treated effluent to the Mangatarere Stream should be reduced as soon as practicable and thus the timeframes proposed should be seen as a maximum.

Regional Public Health **recommends** that in formulating a consent condition requiring commissioning of stage 2 works by 2025, that consideration is given in the consent wording to reflect that disposal technologies and treated wastewater demand may alter over the ensuing eight years. It would be anticipated that discharge to land would follow the current best practice operational procedures at the time of commencement of activity. It is further **recommended** that provision for a structured review process be incorporated into consent conditions to regularly track and monitor progress towards the implementation of the staged upgrades.

Resolution

The decision sought in the event that the application is granted is the imposition of adequate conditions to protect the health of people and communities including that:

- Public warning signage shall be erected around areas of disposal of treated effluent to land.
- Public warning signage shall be in placed in the vicinity of the plants discharge to the Mangatarere Stream.
- The proposed advisory group consider whether there are any parties in addition to regulatory agencies who may wish to be informed about intermittent discharges in the future.
- That a formal complaints procedure be required.
- That disposal to land methods ensures that aerosols (including associated odour) do not cross boundaries to adjoining properties thus meeting the Wairarapa Combined District Plan provisions and variations in land use consents that Carterton District Council hold.
- That a deficit irrigation regime be required for any consent issued for irrigation to land of treated waste water effluent.
- That appropriate conditions are imposed around monitoring of impacts on groundwater.
- Consideration is given to incorporating monitoring of implementation of the staged upgrades and alignment with reassessment of current best practice and wastewater treatment demand.

We **do** wish to be heard in support of our submission.

We have served a copy of this submission on the applicant. We are happy to provide further advice or clarification on any of the points raised in our written submission. The contact point for this submission is:

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Kind regards

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Peter Gush
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