Under The Resource Management Act 1991 (RMA)

In the matter of an application by **Dunedin City Council** for resource consents

for continued operation, closure and aftercare of the Green

Island landfill

Otago Regional Council reference RM23.185

Dunedin City Council

Applicant

Closing Submissions of Counsel for Dunedin City Council

Date: 3 April 2025

Applicant's solicitors:

Michael Garbett | Rebecca Kindiak
Anderson Lloyd
Level 12, Otago House, 477 Moray Place, Dunedin 9016
Private Bag 1959, Dunedin 9054
DX Box YX10107 Dunedin
p + 64 3 477 3973
michael.garbett@al.nz | rebecca.kindiak@al.nz



Introduction

1 These closing submissions address a number of matters that arose at the hearing.

Community Liaison Group

- The Applicant has reflected on the utility and support for a community liaison group. The Applicant has been active to meet and work with neighbours on issues as they arise, or proactively to inform neighbours of what is planned at Green Island. This is both in relation to the RRP and the landfill. This direct engagement with neighbours and community members serves a better purpose and is more responsive than calling a formal quarterly community liaison group meeting.
- 3 DCC can and does already communicate with the wider community through the existing structures of the Saddle Hill Community Board, and also the Greater Green Island Community Group. This Community Group has a direct interest in the Green Island community.
- Therefore, DCC seek to delete the proposed conditions requiring a formal structure and meeting cycle for a community liaison group.

Tables Requiring Monitoring

- The relevant experts for the Applicant have worked to update the tables to clearly separate out the monitoring requirements for surface water, groundwater and leachate. As expected these have been sent onto the ORC experts to review and comment.
- 6 Attached to these submissions are:
 - (a) An email from Mary Wood dated 2 April that picks up the ORC technical team's comments and responds to the issues raised in red text. This is provided to the Commissioner to allow visibility of the experts discussion on these topics.
 - (b) A new suite of leachate, groundwater and surface water tables. This includes the comments of the ORC experts, Mary Wood and Dusk Mains.
 - (c) A final set of conditions produced by Mr Dale. This highlights in grey shading the changes from the version presented at the hearing. This is in word and PDF. The PDF version includes the final signed bond which is a PDF document located at Attachment B to the General

Conditions. The Applicant offers this version of the conditions to apply to the consents.

- 7 In terms of unresolved matters between the experts that require decisions from the Commissioner it appears those are:
 - (a) The approach to identifying trigger levels. The Applicant's experts' approach is for the conditions to specify what parameter needs a trigger level, how it is to be calculated, and for it to be included in the Landfill Development and Landfill Closure Management Plans, to then be certified by the ORC as meeting the requirements of the conditions. It is submitted this is an appropriate division between the Commissioner requiring trigger levels for specified parameters using stated criteria, and leaving the actual numbers to be able to potentially change as monitoring data develops, for certification by ORC. This approach allows these trigger levels to change over time, but remain as the lesser of the stated parameters. It is noted this is the approach adopted for the Smooth Hill consent. In contrast the ORC comments seek to have trigger level numbers specified in the conditions now. This locks in a trigger level in the consent and would require a variation to the consent (rather than the Management Plans) each time a parameter needed to change to remain as the lesser of the specified triggers. This approach preferred by the ORC experts is submitted to be extremely cumbersome, costly and unnecessary.
 - (b) The parameters where trigger levels are required. There is a difference in approach to some of the parameters. The ORC experts seek trigger levels on additional parameters such as E. coli and those that can be indicative of seawater. The DCC's experts' approach has been to identify contaminants of concern to measure the possibility of leachate escape, and set trigger levels for them. DCC relies on it's experts recommendations on this issue and it is submitted it is the trigger of leachate that is a key measure to trigger adaptive management to intervene to remedy.
- 8 Overall it is submitted the DCC's experts' approach is reasonable, fit for purpose, and appropriately precautionary.

Additional Monitoring Well in Line 3

9 Mr Dale has recommended a new condition to cover the possibility of a new monitoring well to be installed in line 3 as part of the adaptive management set of conditions (General Condition 51(d)(iii)).

Bird Nesting

In the speaking notes provided at the hearing by Elizabeth Morrison there is recommended a new condition 47 to deal with native bird nesting. Tanya Blakely has reviewed this condition and recommended modifications which have been included in the draft conditions by Mr Dale (Condition 46 in RM23.185.01). Ms Blakely's version is favoured by the Applicant to make it clear that exotic tree felling can occur outside the nesting period without the rigour that the condition proposed by Ms Morrison requires.

Telemetry for Freshwater Monitoring

- 11 The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010) (**Regulations**):
 - (a) apply to holders of water permits which allow freshwater to be taken at a rate of 5 litres per second or more; and
 - (b) do not apply to a water permit if the taking of water under the permit is "non-consumptive" in that, the same amount of water is returned to the same water body at or near the location from which it was taken (Regulation 4).
- 12 Freshwater is not defined in the Regulations but is defined in section 2(1) of the RMA as: "all water except coastal water and geothermal water", meaning that the combination of stormwater and groundwater does meet the definition of "freshwater". Groundwater and stormwater "taken" into the leachate collection system is conveyed for treatment to the Green Island Wastewater Treatment Plant. This "freshwater" can not therefore be considered to be returned to the same water body from which it was taken. It is therefore considered the Regulations do apply to these freshwater takes.
- The rate at which freshwater can be taken must be determined under Regulation 5 which states that the applicable rate is the greatest rate at which water may be taken under the permit, after applying a series of rules.
- 14 The first rule is that: each rate specified in the permit must be converted into the average rate at which water may be taken in litres/second during the period to which the rate applies.
- The proposed conditions for the water permit do not specify a maximum rate, or an average rate for the taking of groundwater and leachate. Instead proposed condition 3 of the water permit requires that the taking of groundwater and leachate from the leachate pump stations must not

exceed an average volume of 432 m3/day and a maximum of 1,728 m3/day.

- Dusk Mains has explained that the groundwater take associated with the leachate trench at the Green Island landfill is very small, and that the combined groundwater and leachate flow is at most 2L per second. During wet weather flows additional stormwater flows may be introduced into the leachate collection system and increase flows to up to 9L per second.
- 17 It is considered that the average rate of freshwater take that could be taken, including wet weather stormwater could exceed 5l/s. This is in reality only a peak flow. It is therefore considered the Regulations do apply to this take.

Practical implications

- 18 Counsel has consulted the landfill manager Mr Lincoln Coe on the practical implications of what would be needed to report in real time to the ORC on pumping volumes being transported through the leachate collection network.
- 19 The response received from Mr Coe is:

Current System / Infrastructure can NOT deliver what is being asked by ORC.

Hence we would need both time and money to upgrade our infrastructure.

We have no budget allowance in the next two years for this.

It is not a project that we had on the list to implement on or soon after receipt of consent.

Reason being at present, existing system is perfectly adequate for weekly / monthly / annual monitoring and reporting.

With respect to upgrades there are three options.

MINOR UPGRADE

Minor upgrade to existing system that will become redundant in the next 5 years.

May be able to be implemented within 6 months.

Costs could be up to \$100k. (ie 9 PS's @ \$10k each)

MAJOR UPGRADE

Major upgrade to existing system that will become redundant in the next 5 years.

May be able to be implemented within 12 months.

Costs could be up to \$200k. (ie 9 PS's @ \$20k each)

Changes at Sewer Discharge Point

A different alternative is to measure flow as it enters the Green Island waste water Treatment plant, and not at each pump station.

This would need two additional flowmeters (and power / comms etc.....) at the two points where we discharge into the sewer.

Cost probably \$50-\$60k and 4-6months to get that up and going.

Summary

- 20 Based on all this it is submitted that the conditions should allow for freshwater "taken" to be measured as it enters the wastewater treatment plant. This captures all freshwater and leachate flows on one place, and is the most cost effective approach to implement. As can be seen from Mr Coe's advice above, two flow meters, electricity and communications infrastructure would be needed to be installed to achieve this telemetry to meet the requirements of the Regulations.
- 21 This is consistent with Regulation 10 which does allow the Regional Council to grant approval to any permit holder to measure flows "as near as practicable to the location from which water is taken under the permit".
- 22 Mr Dale has modified the draft condition 4 on RM23.185.02 to achieve this.

Methane Condition on the Landfill Cap

- DCC maintain that the recommended condition from Simone Eldridge in paragraph 24 of her evidence identifies a suitable condition that methane is not to exceed 5000 ppm escaping through the landfill cap (condition 26 in RM23.185.06). This is based on the national environmental standard and is appropriate.
- DCC does not support a lesser trigger level requiring monitoring and intervention to ensure that this condition is not breached. It is for DCC to manage the final capping and then monitor to ensure this consent limit is not breached at any time, and a consented trigger level on this condition is not warranted.

Bond

A final bond document has been agreed between DCC and ORC. This has been worked on by both DCC and ORC legal advisors and signed on behalf of both Councils. This is attached as Attachment B to the General Conditions prepared by Mr Dale.

Conclusion

26 It is submitted that all outstanding issues have been addressed and the Commissioner should be able to issue a decision approving the consents sought on the conditions DCC has offered as set out in this closing and attached.

Dated this 3rd day of April 2025

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Michael Garbett / Rebecca Kindiak

Counsel for the Applicant