

Otago Regional Council  
Private Bag 1954  
Dunedin 9054

Attention: Hilary Lenox

Dear Hilary

## Technical Review to Inform Notification Decision: Smooth Hill Landfill - Appendix 16 - Acoustics Assessment

### Introduction

- 1 Dunedin City Council (DCC) proposes to establish a new Class 1 landfill at Smooth Hill, south of Dunedin Airport. DCC has applied to Otago Regional Council (ORC) for a range of resource consents required for the establishment and operation of the landfill.
- 2 Tonkin & Taylor Ltd (T+T) has been engaged by ORC to undertake a technical review of the acoustics (noise and vibration) assessment lodged by DCC in support of its resource consent application (DCC consent).
- 3 The purpose of this report is to set out the findings of our technical review of DCC's acoustics assessment to inform a decision to be made by ORC regarding notification of the resource consent application.
- 4 The following documents have been considered as part of this technical review:
  - **Appendix 16 - Noise Report (August 2020):** *GHD August 2020. Waste Futures – Smooth Hill Landfill Assessment of Acoustics Effects. Report prepared by GHD Limited for Dunedin City Council.* (herein referred to as the 'Acoustics Report').
  - **Revised Appendix 16 - Noise Report (May 2021):** *GHD May 2021. Waste Futures – Smooth Hill Landfill Assessment of Acoustics Effects. Report prepared by GHD Limited for Dunedin City Council.* (herein referred to as the 'Final Acoustics Report').
  - **Dunedin City Council - proposed Smooth Hill Landfill: Section 92 review - requests for further information:** *Report prepared for ORC by T+T, September 2020.* (herein referred to as the 's92 request').
  - **Smooth Hill Landfill - Section 92 Response:** *Provided to ORC as part of its s92 request to DCC, dated 4 August 2021.* (herein referred to as the 's92 response').
  - **Smooth Hill Landfill Draft Conditions:** *Provided to ORC as part of DCC's s92 response of 4 August 2021.* (herein referred to as the 'draft conditions').
- 5 A virtual meeting was held with the applicant's noise expert on 27 April 2021 to discuss the Acoustics Report. The meeting clarified a number of matters and subsequent to the meeting the Final Acoustics Report was prepared as part of a revised application package of information. This Final Acoustics Report followed the s92 request.

- 6 This technical review has been undertaken by Darran Humpheson, Senior Acoustics Specialist at T+T. It has been prepared in accordance with T+T's letter of engagement with the Otago Regional Council dated 12 November 2019.

### Receiving environment

- 7 The application site is located on land zoned as coastal rural. There is an anticipation that within rural land zones there will be noise generating activities, primary associated with production activities, e.g. forestry, mining and resource-based activities.
- 8 The application site is designated for the purposes of a landfill facility and Condition 3 of the designation (D659 – proposed Smooth Hill Landfill) requires noise to achieve 55 dB during the day and 40 dB during the night within 50 metres of the nearest house at the date on which the designation becomes operative.
- 9 These noise levels are consistent with Rule 9.3.6 'Noise' of DCC's 2<sup>nd</sup> Generation Plan.

### Assessment of landfill noise

- 10 The nearest residential receiver, 731 Big Stone Road, is approximately 400 metres from where operational activity associated with the landfill operation and construction will take place. McLaren Gully Road and Big Stone Road will require widening and resealing. The nearest dwellings to the road works are 108 and 109 McLaren Gully Road at approximately 65 metres from the edge of the existing carriageway.
- 11 The Final Acoustics Report assessed noise levels during operations and construction of the road. Appropriate assumptions were made, including source sound levels, locations and operating conditions. The Final Acoustics Report included a more detailed assessment of vehicle noise than that provided in the August 2020 Acoustics Report.

### Mitigation

- 12 A Construction Noise Management Plan will be prepared for road upgrade works. This will include maintaining a minimum separation distance of 40 metres between construction equipment and the residential dwellings at 108 and 109 McLaren Gully Road.
- 13 A Landfill Management Plan will be prepared to manage noise from operations. This will include undertaking noise monitoring to assess compliance with the noise limits required by conditions of the designation.
- 14 A Bird Management Plan will be prepared and recommendations are proposed to avoid, where practicable, noise-based bird dispersal methods.

### Proposed conditions

- 15 The applicant has actively engaged with ORC's noise expert and six noise specific conditions have been drafted. The conditions include compliance with the standard noise limits of the DCC 2<sup>nd</sup> Generation District Plan, restrictions on working hours and a minimum separation distance for road upgrade works, and the requirement to prepare and comply with a Construction Noise Management Plan (CNMP).

### Conclusion

- 16 We conclude that the potential effects of the proposal can be appropriately managed through the proposed conditions of consent and accordingly, the potential adverse effects from construction and operation of the landfill will be less than minor.

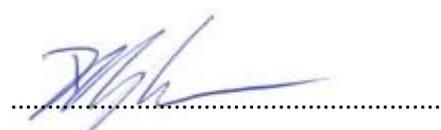
## Applicability

- 17 This Report been prepared for the exclusive use of our client Otago Regional Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd

Environmental and Engineering Consultants

Prepared by:



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Senior Acoustics Specialist

Authorised for Tonkin & Taylor Ltd by:



Tony Bryce  
Project Director

26-Aug-21

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