

Before the Independent Commissioner Hearing Panel

Under the Resource Management Act 1991 (**RMA**)

In the matter of an application by **Dunedin City Council** to develop a landfill at Smooth Hill, Dunedin.

Evidence in reply of Maurice Richard Dale – Planner

12 August 2022

Applicant's solicitors:

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Introduction

- 1 My name is **Maurice Richard Dale**. I set out my qualifications and experience in my primary brief of evidence, dated the 29 April 2022.
- 2 I confirm I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2014 and that I have complied with it when preparing my evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

- 3 The purpose of this evidence is to provide a revised set of conditions, as requested by the Commissioners at the hearing, and set out in the Directions of the Commissioners in Minute 4.

This evidence will also cover:

- (a) the relevance of the provisions of Plan Change 1 to the Waste Plan, which became operative on 9 July 2022; and
- (b) the relevance of the New Zealand Coastal Policy Statement (**NZCPS**).

Revised conditions

- 4 I have revised and restructured the suite of draft conditions for the ORC resource consents as set out in **Attachment 1** to my evidence. The revised conditions commence with a section of general conditions, followed by conditions grouped by the following consents that have been sought:
 - (a) Discharge of solid waste and leachate to land.
 - (b) Discharge of landfill odour and dust, and landfill gas and flare emissions to air.
 - (c) Discharge of stormwater and collected groundwater to water.
 - (d) Take and use of groundwater from the landfill groundwater collection system (with an expiry date of 6 years).
 - (e) Diversion and damming of surface water.
 - (f) Earthworks and vegetation clearance within setbacks specified under the National Environmental Standard for Freshwater (**NES-FW**).

- 5 The consent for earthworks and vegetation clearance includes draft conditions intended to manage the following activities for which consent is triggered under the NES-Freshwater:¹
- (a) Earthworks within 100m of a natural wetland that results in partial drainage of a wetland;
 - (b) Vegetation clearance and earthworks within 10m of a natural wetland; and
 - (c) Restoration of a natural wetland.
- 6 The general conditions of consent are proposed to form schedule 1 attached to all the consents listed in paragraph 4. The general conditions capture those matters which apply across multiple consents to avoid unnecessary repetition and include processes relating to the certification of the detailed design of the landfill and management plans.
- 7 General conditions 14 – 17 specify the amended requirements for, and content of, a Landfill Management Plan (**LMP**). The LMP requirements and content has been simplified from that originally proposed so that it only details the practices and procedures to be implemented to achieve the conditions of consent which set out minimum performance standards.
- 8 The specific requirements for a separate Receiving Waters Environment Management Plan and Fire Preparedness and Response Plan have also been removed, with these matters instead being encapsulated into the overall LMP framework. Flexibility however is retained to develop specific sub-management plans for these (and other) matters under the overall umbrella of the LMP if that is ultimately preferred by a landfill operator.
- 9 Matters that fall outside the scope of the ORC consents and are more appropriately addressed through the outline plan of works process under the designation have been removed from the conditions. Draft advice note (b) on the discharge of solid waste to land consent sets out those matters which instead will need to be addressed as part of the outline plan of works process.
- 10 The revised conditions have been provided to and discussed with the ORC's consultant planner Ms Lennox. ORC's comments on the revised conditions, including any alternative condition wording proposed by them are captured in the table set out in **Attachment 2** to my evidence. The

¹ Take, use, damming, and diversion within 100m that results in partial drainage of a wetland is covered under the other consents sought.

applicant's response to ORC's comments and any alternative condition wording is also recorded in the table. Changes agreed to by the applicant are shown as track changes in the revised conditions in **Attachment 1**.

- 11 The revised conditions have also been provided to Dunedin International Airport Limited's (**DIAL**) planner Mr Matt Bonis who has engaged with Mr Sean Rogers from the Civil Aviation Authority (**CAA**) with regard to whether the conditions negate the need for the CAA to impose operational restrictions on DIAL as a consequence of the operation of the landfill. In response, the CAA has advised that it does not wish to be directly involved in any RMA consultation, as any decisions made by CAA in the interests of aviation safety, will be independent of those made by ORC.
- 12 DIAL's comments on the revised conditions, including any alternative wording proposed by them are captured in the table set out in **Attachment 2** to my evidence. The applicant's response to DIAL's comments and any alternative condition wording is also recorded in the table. Changes agreed to by the applicant are shown as track changes in the revised conditions in **Attachment 1**.
- 13 In regard to the Directions of the Commissioners in Minute 4, I make the following comments:
 - (a) Draft general conditions 3 – 9 set out the requirements for the establishment and operation of a Community Liaison Group (**CLG**).
 - (b) Draft general condition 53 sets out the requirements for the establishment of fixed numerical trigger point concentrations for indicator contaminants proposed by Mr Anthony Kirk for the discharges of contaminants to land and water.
 - (c) Draft general conditions 68 – 79 set out the requirements for a bond.
 - (d) Draft conditions 13 – 15 on the discharge of solid waste to land consent sets out the outcomes and specifications of the landfill liner proposed by Mr Richard Coombe, including the process to be followed if an alternative liner is proposed.
 - (e) Draft conditions 4 – 6, and 16 on the discharge of solid waste to land consent set out the requirements for further testing of the loess proposed by Ms Samantha Webb to determine its suitability for use in the proposed lining system, including the process for liner design if the loess is determined to be unsuitable.

- (f) Draft condition 28 on the discharge of solid waste to land consent sets out the proposed waste separation process (previously included as Attachment 3 to the consents). The 10% of residual putrescible waste going to Smooth Hill is intended to be a target rather than a limit. A limit implies that compliance must be achieved at all times. I consider it would be impracticable to measure organic contamination by weight in each and every load to determine compliance with a limit, especially as separating all organic contamination from a load of general waste would be practically impossible.
- (g) Draft condition 48 on the discharge of solid waste to land consent sets out the requirements for a Southern Black Backed Gull Management Plan (offered on an Augier basis) for the management of landfill food availability and the breeding success of gull population at Dunedin breeding sites (where access is feasible) prior to the closure of the Green Island landfill. Preparation and implementation of this plan is to commence within 6 months of the grant of consent.
- (h) Draft conditions 49 – 51 on the discharge of solid waste to land consent sets out the work and studies that will be undertaken to negate the need for CAA to impose operational restrictions on DIAL as a consequence of the operation of the landfill. This requires additional baseline bird monitoring to supplement existing monitoring, together with completion of a full bird strike risk assessment confirming the landfill will not increase the existing level of bird strike risk. The risk assessment will then inform the development of the final Landfill Operational Bird Management Plan prior to landfill operation commencing.
- (i) Draft condition 66 on the discharge of solid waste to land consent includes a requirement for the LMP to set out procedures for the management of any fire that occurs in the deposited waste, including the removal of excess water generated through fire-fighting. Flexibility is retained within the consents for those matters to be specifically captured in a Landfill Fire Management Plan under the LMP (if that is ultimately preferred by a landfill operator).
- (j) Draft condition 23 on the discharge of landfill odour and dust, and landfill gas and flare emissions to air consent includes a landfill gas oxygen concentration limit of 5% v/v oxygen. Procedures for an exceedance of this limit will be detailed in the LMP, as set out under condition 27 of that consent.

- (k) Draft condition 27 on the discharge of landfill odour and dust, and landfill gas and flare emissions to air consent sets out the matters proposed by Mr Matt Welch to be addressed in the Landfill Management Plan (LMP) for the management of landfill gas. Flexibility is retained within the consents for those matters to be specifically captured in a Landfill Gas Operational Management Plan under the LMP (if that is ultimately preferred by a landfill operator).
- 14 During the course of the hearing, the Commissioners asked Ms Yvonne Takau to draft a proposed condition regarding Te Rūnanga o Ōtākou's involvement in any monitoring activities. Ms Takau's proposed condition requiring the development of a monitoring plan has been incorporated as general condition 41.
- 15 I have also revised the draft conditions for the DCC resource consent for the road upgrades as set out in **Attachment 3** to my evidence. The revised conditions have been provided to the DCC's consultant planner Ms Lindsay. Ms Lindsay is in full agreement with these revised conditions.

Plan Change 1

- 16 Plan Change 1 to the Waste Plan became operative on 9 July 2022. The provisions of the Waste Plan as amended by the notified version of Plan Change 1 were addressed in my primary brief of evidence. The operative version of Plan Change 1 includes the following additional changes material to the consideration of the Smooth Hill applications:
- (a) Policy 7.4.11 is further amended to require new landfills "to avoid significant adverse effects of discharges" and otherwise minimise the adverse effects of discharges on the environment outside the landfill footprint² by requiring the siting, design, construction, operation, and management of new landfills is in accordance with the WasteMINZ guidelines³, and a site-specific management plan in accordance with the guidelines is prepared and implemented.
- (b) A new Policy 7.4.11A is included which requires discharges at and from new and operating landfills within 13km of airports defined as "nationally significant infrastructure" are to be assessed with regard to siting, class of landfill, and preparation and implementation of

² Landfill footprint is defined by Figure 5-1 of the Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land August 2018.

³ Technical Guidelines for Disposal to Land, Waste Management Institute New Zealand, August 2018.

management plans in order to prevent the landfill increasing the existing risk of bird strike.

- 17 On the basis of the expert evidence for the applicant described in my primary brief of evidence, I consider that the siting, design, construction, operation, and management of the landfill will be in accordance with the WateMINZ guidelines, and that all adverse effects of the discharges on the environment outside the landfill footprint will be minor and have been minimised. Based on the reply evidence of Mr Kirk, I also consider that any potential risks to human health as a consequence of the discharges will be low and therefore not significant. Accordingly, I consider that any significant adverse effects of the discharges outside the landfill footprint will be avoided, and adverse effects have otherwise been minimised consistent with policy 7.4.11.
- 18 Dunedin International Airport is an airport defined as “nationally significant infrastructure” for the purposes of Policy 7.4.11A. The siting, class of landfill, and preparation and implementation of management plans have all been assessed by the applicant to ensure any increase in the existing risk of bird strike is prevented. On the basis of the evidence of Mr Shaw, I consider removal of putrescible waste to the extent practicable, and implementation of operational and bird control procedures in the Landfill Operational Bird Management Plan will ensure bird numbers are kept to very low levels. This coupled with the reduction of the existing Southern Black Backed Gull population prior to opening of Smooth Hill could result in a net reduction in bird strike risk to aviation. Accordingly, I consider an increase in the existing risk of bird strike will be prevented consistent with policy 7.4.11A.

New Zealand Coastal Policy Statement

- 19 The purpose of the NZCPS is to state policies in order to achieve the purpose of the RMA in relation to the coastal environment of New Zealand. The extent and characteristics of the “coastal environment” are defined by policy 1 of the NZCPS:
- (a) *the coastal marine area;*
 - (b) *islands within the coastal marine area;*
 - (c) *areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands, and the margins of these;*
 - (d) *areas at risk from coastal hazards;*

- (e) *coastal vegetation and the habitat of indigenous coastal species including migratory birds;*
 - (f) *elements and features that contribute to the natural character, landscape, visual qualities or amenity values;*
 - (g) *items of cultural and historic heritage in the coastal marine area or on the coast;*
 - (h) *inter-related coastal marine and terrestrial systems, including the intertidal zone; and*
 - (i) *physical resources and built facilities, including infrastructure, that have modified the coastal environment.*
- 20 The Proposed Dunedin Second Generation District Plan (2GP) has mapped the location of areas with coastal natural character, and the coastal environment outside those areas. On the basis of the 2GP mapping, the Smooth Hill site is located outside of the coastal environment, but the Brighton estuary and beach forming parts of the landfill receiving environment are located within the coastal environment.
- 21 I consider that whether the NZCPS is relevant to the assessment of the proposal turns on the wording of the specific provisions of the NZCPS. In that regard I note the following:
- (a) The preamble to the NZCPS notes the “activities on land can have a major impact on coastal water quality” as particular challenge in promoting sustainable management of the coastal environment.
 - (b) Policy 4 relating to integrated management notes that particular consideration is required of situations “where land use activities affect, or are likely to affect, water quality in the coastal environment and marine ecosystems through increasing sedimentation.
- 22 I consider the NZCPS could therefore be a relevant consideration, and particularly in regard to effects on coastal water quality. On the basis of the expert evidence of Mr Kirk and Mr Ingles described in my primary brief of evidence I consider that any adverse effects on the coastal environment would be undetectable. Furthermore, based on the reply evidence of Mr Kirk, I also consider that any potential risks to human health in the coastal environment will be low and acceptable.
- 23 Recognising that evidence, I consider that the proposal will be consistent with the following relevant provisions of the NZCPS:

- (a) The effects on the coastal environment are not uncertain, unknown, or little understood such that a precautionary approach is required under policy 3.
- (b) Indigenous biological diversity in the coastal environment will be protected by avoiding adverse effects, consistent with policy 11.
- (c) Natural character of the coastal environment will be protected from inappropriate use and development by avoiding significant adverse effects consistent with policy 13(1)(b).
- (d) Use and development will not result in a significant increase in sedimentation in the coastal marine area/coastal waters consistent with policy 22(2), and sediment loadings in runoff will be controlled consistent with policy 22(4).
- (e) Significant adverse effects on ecosystems and habitats from discharges of water in the coastal environment will be avoided consistent with policy 23(1)(d), and adverse effects on the life supporting capacity of water will be minimised consistent with policy 23(1)(f).
- (f) Contaminant and sediment loadings in stormwater will be reduced at source through treatment and controls consistent with policy 23(4)(b).

Conclusion

- 24 Ms Lennox's s42A report in reply continues to recommend refusal of the ORC resource consents on the basis that the effects (risk of bird strike) are considered on balance to be significant; the proposal would be contrary to 10 policies in the Operative and Proposed RPS, and Waste Plan; and that an alternative location and additional treatment prior to discharge could be had regard to in determining whether or not consent should be granted.
- 25 Overall, I remain satisfied it is appropriate to grant the application, subject to the revised conditions I have recommended. Based on the evidence of Mr Shaw and the conditions, I consider the risk of bird strike to aviation safely has been appropriately addressed, such that in an overall sense the proposal remains consistent with the overall direction provided by the planning documents. I consider the applicant has given appropriate regard to alternative locations and treatment methods, noting why such alternatives are not practicable.

A handwritten signature in blue ink, appearing to be 'M. Dale', written in a cursive style.

Maurice Richard Dale

12 August 2022