



SUBMISSION ON RESOURCE CONSENT APPLICATION
RM20.080
BY DUNEDIN INTERNATIONAL AIRPORT LIMITED
PURSUANT TO SECTION 96 OF THE
RESOURCE MANAGEMENT ACT 1991

To: The Chief Executive
Otago Regional Council
Private Bag 1954
Dunedin 9054

SUBMITTER: DUNEDIN INTERNATIONAL AIRPORT LIMITED (DIAL)

1. This is a submission on an application from the Dunedin City Council for a resource consent with reference RM20.080 for activities associated with the proposed Smooth Hill landfill at the corner of Big Stone Road and McLaren Gully Road, Brighton (the **Application**).
2. DIAL is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991 (**RMA**).
3. DIAL wishes to be heard in support of this submission.
4. The Application raises issues traversed during Plan Change 1 to the Otago Regional Plan: Waste ('PC1') and engages the policy framework in respect of protection of existing infrastructure of national significance.

Specific Points of Submission

5. DIAL opposes the application for the following reasons:
 - (a) The Application seeks to locate the proposed Smooth Hill Landfill, a Class 1 landfill, 4.5 km from Dunedin International Airport (**Airport**). Two kilometres closer than the 6.5 km buffer zone used in the 1992 site selection process, and 8.5 km closer than the 13 km buffer between municipal solid waste landfills and airports unanimously recommended by all current International aviation guidance, including but not limited to the International Civil Aviation Organisation (ICAO) Guidelines, the World Birdstrike Association Standard 9,

and the Australian Department of Infrastructure and Regional Development Framework, and nationally in NZ CAA in Advisory Circular AC139-16 (2011).

- (b) The policy framework protects the Airport, as regionally and nationally significant infrastructure¹ (**significant infrastructure**), from the establishment of incompatible activities that risk increased reverse sensitivity effects or which may compromise the Airport's operational needs.
- (c) The Application identifies potential increased risk of reverse sensitivity effects and potential compromise of operational health and safety needs:

“Operation of the landfill will attract increased abundances of birds and could increase the risk of bird strike with aircraft within the Dunedin airport approach/departure circuit.”²

The Draft Bird Management Plan (**Bird Plan**) specifies the risk:

“However, the risk of bird strike with aircraft is of concern, given that the landfill is approximately 4.5 km from Dunedin Airport and is within the Airport's flight fan (see Figure 1). The consequences of wildlife strike with aircraft can be very serious. In the extreme, wildlife strikes can cause human fatalities, injuries, aircraft loss and damage. The New Zealand Civil Aviation Authority (NZ CAA) and International Civil Aviation Organisation (ICAO) ‘...recommends that refuse dump sites be located no closer than 13 km from the airport property’ (Civil Aviation Authority of New Zealand, 2008). These statements are guidance only and not regulated. The guidance applies to all Part 139 aerodromes, including Dunedin Airport.”³

This potential for increased health and safety risk engages the strong avoid policies in the proposed Otago Regional Policy Statement 2021 (**pRPS 2021**).

- (d) Due to its proximity to Lake Waiholo, wetlands and other bird habitat the Airport is already at a high risk of bird strike. While these underlying risks cannot be avoided additional risk arising from the Application can.
- (e) Putrescible waste is particularly problematic. Avisure's Smooth Hill Preliminary Bird Hazard Assessment (**Avisure Report**) states acceptance of

¹ National Policy Statement on Urban Development 2020 definition of **nationally significant infrastructure**. Proposed Otago Regional Policy Statement 2021 (**pRPS 2021**) definitions of **nationally significant infrastructure** and **regionally significant infrastructure**.

² Assessment of Environmental Effects at 8.12.2 Airspace Safety

³ Boffa Miskell Limited Smooth Hill Landfill – Bird Management, Draft Management Plan 4 June 2021, at 1.1.1

putrescible waste "...will be critical for the likely attraction of birds to the new landfill."⁴

- (f) The Application identifies other viable solutions to depositing putrescible waste at Smooth Hill which the Applicant has elected not to pursue.
- (g) Given the seriousness of bird hazard, DIAL considers the administrative controls (changes to the way people work) proposed are inadequate to remove all potential increase in bird strike risk inherent in the Application.

REASONS FOR SUBMISSION

The Airport

- 6. Situated on approximately 300 hectares at Momona, the Airport is an integral part of the local, regional and national transport system with nearly 1 million passengers passing through annually (with unrestricted travel). Part 139 certified, the Airport also connects cargo and freight to national and international destinations.
- 7. DIAL is responsible for ensuring the Airport which it owns operates safely and efficiently. Under Civil Aviation Rules, DIAL must manage the risk posed by birds colliding with aircraft (**bird strike**).⁵ Minor bird strikes can result in significant damage while serious incidents can be disastrous.
- 8. The NZ CAA in Advisory Circular AC139-16 (2011) in a section titled 'Planning Land Use Near Aerodromes' states:

"The greatest problem at many aerodromes is the presence of one or more waste disposal sites near the aerodrome. These facilities provide food for many birds, mainly gulls, which may then use adjacent aerodromes as loafing and resting sites.

Therefore, it is crucial aerodrome operators make submissions during urban planning or district scheme reviews and work with local authorities to ensure bylaws are established, so municipal authorities know that such activities influence bird populations, which can be hazardous to air transportation if near an aerodrome and approach or take-off flight paths for aircraft".

⁴ The Smooth Hill Preliminary Bird Hazard Assessment, summary

⁵ Civil Aviation Rule 139.71

Risk of Bird Strike

“Without appropriate mitigation there is a very high risk to aviation from the proposed Smooth Hill Landfill.”⁶

9. Avisure’s statement couches the risk within the mitigation but this should not detract from the clear identification of a very high risk to aviation from the proposed Smooth Hill Landfill.
10. An aircraft crash or emergency landing caused by bird strike is precisely the sort of low probability high impact effect that section 3(f) of the RMA describes. An aircraft colliding with just a single bird has the potential to cause significant damage. Large, high-flying, flocking birds like Black Backed Gulls pose the highest risk and collision is potentially catastrophic. The take off and landing phases when aircraft are at lower elevations are when most bird strikes occur.⁷
11. In response to an information request by the ORC the Applicants engaged Boffa Miskell Ltd and Avisure Limited (**Avisure**) to assess the bird strike hazard. The survey data was limited to a non-breeding season and consideration of the Kate Valley Landfill in Christchurch.
12. Kate Valley Landfill is a modern class 1 landfill in an entirely different environmental context than Smooth Hill. Further the reasons for Kate Valley’s low bird numbers remain unclear in the Avisure Report; of note is that the 50 km distance from the previous Burwood Landfill may have contributed to the lack of a gull population establishing⁸. The distance between Green Island and Smooth Hill is considerably less. The Avisure report recognises the impact of this proximity and states that without substantial (and ongoing) management there will simply be the transfer of substantial numbers of black back gulls.
13. The difference between the sites undermines DIAL’s confidence in the proposed mitigations based on Kate Valley practices. It is unclear how increasing the number of mitigations proposed, and also the timeframe associated with their implementation overcomes this uncertainty.⁹ What can be said is that the escalating mitigations indicate increased risk to the airport from the proposed landfill is anticipated. DIAL does not accept that any increased risk is appropriate.

⁶ The Smooth Hill Preliminary Bird Hazard Assessment, summary

⁷ Civil Aviation Authority *Bird Hazards* revised October 2020 page 3

⁸ Avisure, The Smooth Hill Preliminary Bird Hazard Assessment, p 21 at 3.2.6

⁹ The Smooth Hill Preliminary Bird Hazard Assessment, summary

14. The Application proposes to operate Smooth Hill as a class 1 landfill¹⁰ which accepts municipal solid waste, hazardous waste materials and biosolids from the Green Island Wastewater Treatment Plant¹¹. The Application predicts waste volumes of 60,000 tonnes per year.¹² The Draft Bird Management Plan notes that putrescible waste at Kate Valley is approximately 3-16% of the waste stream. No estimate of the volume of putrescible waste to be accepted at Smooth Hill has been provided.
15. The Application appears to consider the steps proposed as part of the Waste Futures Strategy will reduce the amount of putrescible waste. However, it does not state what volumes are anticipated or in what way these will be reduced.
16. In the Bird Plan, Boffa Miskell concludes¹³:
“Putrescible waste should be removed from the waste stream, or if not possible, reduced as much as possible to reduce the attractiveness of the landfill to birds by denying them a food source.”
17. It is not clear why removal might not be possible.
18. The Bird Plan goes on to identify ways to reduce the attractiveness of putrescible waste to birds including:
 - (a) Applying daily cover
 - (b) Using putrescible waste V Pits
 - (c) Separating putrescible waste at collection or at transfer stations and
 - (d) Using sealed trucks for putrescible waste.
19. None of these measures remove putrescible waste from the waste stream though the latter two suggest that removal is possible. So long as a food source is present the risk of attracting birds remains, as does the risk to aircraft.
20. The Notification Decision raises the lack of sufficient Ground water information provided with the Application. In the absence of sufficient ground water information being provided DIAL considers ponding to still be a live concern. Especially in the context of the wetlands creating new bird habitat surrounding the proposed site.

¹⁰ Assessment of Environmental Effects at 5.1

¹¹ Assessment of Environmental Effects at 5.2

¹² AEE at 5.1

¹³ Boffa Miskell Limited Smooth Hill Landfill – Bird Management, Draft Management Plan 4 June 2021, at 10.0

21. The Airport has a relatively high risk of bird strike without the proposed landfill. In 2020, the 12-month moving average strike rate was 6.4 strikes per 10,000 aircraft movements. The limit in the Airport's Wildlife Hazard Management Plan is 5.¹⁴ The CAA consider a strike rate of greater than 5 per 10,000 aircraft movements to be 'medium risk'.
22. In addition, the Application indicates that the closure of Green Island landfill has the potential to increase this risk since a significant colony of Black Backed Gulls will lose their main food source and need to find another. The Bird Plan identifies a risk of the transfer of some 3,000 of the 6,000 total district population of Black Backed Gulls.
23. The Avisure Report considers that since the strike risk at the Airport is likely significant the implication is that the Smooth Hill landfill project "...*should not elevate the strike risk.*"¹⁵ These finding conflict with Avisure's identified very high risk of bird strike from the proposed landfill. However, the Application also assumes the Airport's underlying elevated risk of bird strike reduces the proposed landfill's impact on bird strike. This approach misconceives the effect of high underlying risk in two ways.
24. First, increasing the number of bird attractions near the Airport will increase the number of bird movements. Regardless of mitigation, the risk increases.¹⁶ Sensitivity to additional risk is more important in circumstances of high underlying risk, not less.
25. Second, the high underlying risks cannot be avoided whereas the additional risk from establishing the proposed Smooth Hill Landfill can. Avisure puts it this way:

"It is particularly pertinent for land use planning to consider bird strikes where new land uses in the surrounding areas are being proposed."

Further noting:

"In some situations, landfill projects have been rejected by local planning authorities because the risk was assessed as unacceptable."
26. DIAL considers both the existing high-risk of bird strike, and the anticipated very high risk to aviation from the proposed landfill means that consent should not be granted.

¹⁴ DIAL Annual Report 2020

¹⁵ The Smooth Hill Preliminary Bird Hazard Assessment, at 4.1

¹⁶ Avisure Report at 1.1

Policy Framework

27. The National Policy Statement on Urban Development 2020 (**NPSUD**) recognises the Airport as nationally significant infrastructure.¹⁷ The NPSUD expressly protects nationally significant infrastructure from development which inhibits the ability to ‘ensure the safe or efficient operation’¹⁸ of that infrastructure.
28. The pRPS 2021 describes itself as a ‘step change’ which will ‘set the scene for work on a new Land and Water Regional Plan’¹⁹ signifying a major shift in Council policy to align with the NPSUD and the National Policy Statement for Freshwater Management 2020 (**NPSFM**).
29. In *Lee v Auckland City Council*²⁰ the Environment Court held the provisions of a proposed plan should be given greater weight where these indicate a sharp contrast with the previous policy.²¹ This principle was subsequently approved in both *Keystone Ridge Ltd v Auckland City Council*²² and *Knowles v Queenstown Lakes District Council*²³.
30. The pRPS 2021 recognises the Airport as regionally significant infrastructure.²⁴ Landfill activities are not recognised as nationally or regionally significant infrastructure in either the pRPS 2021 or the NPSUD.
31. As part of this shift the objectives, policies and anticipated outcomes of the pRPS 2021 increase protection of significant infrastructure:
 - (a) Objective EIT-INF-O4 expressly enables people and communities to provide for their health and safety through effective, efficient and resilient infrastructure.
 - (b) Objective EIT-TRAN-O7 entails an integrated effective, efficient and safe air land and sea network connecting Otago to other regions and the world.

¹⁷ National Policy Statement on Urban Development 2020 (**NPSUD**) Clause 1.4 definition of **nationally significant infrastructure**

¹⁸ NPSUD Clause 3.32(1)(c) and Policy 4

¹⁹ Proposed Otago Regional Policy Statement 2021 (**pRPS 2021**), Foreword or Mihi.

²⁰ [1995] NZRMA 241.

²¹ *Lee v Auckland City Council* [1995] NZRMA 241 at 253.

²² HC Auckland AP24/01, 3 April 2001, 2001 WL 615366

²³ [2019] NZHC 3227.

²⁴ **pRPS 2021** definition of **regionally significant infrastructure**

- (c) Policy EIT-INF-P11 provides for the operation of existing significant infrastructure within environmental limits.
 - (d) Policy EIT-INF-P15 – is a strong direction “*to avoid the establishment of activities that may result in reverse sensitivity effects on nationally or regionally significant infrastructure, and/or where they may compromise the functional or operational needs of nationally or regionally significant infrastructure.*”
 - (e) Policy EIT-TRAN – P21 protects the efficient and effective operation of the transport system by (among other things):
 - (i) *avoiding adverse effects of activities on the functioning of the transport system,*
 - (ii) *avoiding the impacts of incompatible activities, including those that may result in reverse sensitivity effects*
 - (f) Policy HAZ-CL-P18 also strongly directs that the development of waste facilities must “avoid adverse effects on the health and safety of people”.
 - (g) Result EIT-INF-AER7 anticipates nationally and regionally significant infrastructure will be protected from reverse sensitivity effects caused by incompatible activities.
32. The new policy direction unequivocally protects existing significant infrastructure from increased risk of:
- (a) reverse sensitivity effects, and/or
 - (b) compromised functional or operational need.
33. Landfill activities are not similarly protected by either the pRPS 2021 or the NPSUD. In fact, the pRPS 2021 prioritises existing nationally significant infrastructure activities and the health and safety of people over the development of waste facilities and services.
34. The Application acknowledges the proposed landfill activities have the potential to increase the risk of reverse sensitivity effects to Airport activities and the risk of compromise to the Airport’s operational health and safety needs. Increased risk is contrary to the avoidance policy direction.

Reverse Sensitivity

35. Reverse sensitivity most often refers to residential activity seeking to locate near existing activities which lawfully produce undesirable effects, like a housing estate next to a piggery. However reverse sensitivity also includes circumstances where a proposed activity is likely to constrain or curtail an existing activity. These effects are expressly included in the Partially Operative Otago Regional Policy Statement 2019 definition:

“Reverse Sensitivity: The potential for the operation of an existing lawfully established activity to be constrained or curtailed by the more recent establishment or intensification of other activities which are sensitive to the established activity.”²⁵

36. While the pRPS 2021 does not define reverse sensitivity effects it does seek to protect the Airport throughout its policy framework as set out above.
37. Case law also assists in understanding these effects. The Court in *Independent News Auckland Limited v. Manukau City Council*²⁶ explains²⁷:

“In most, if not all cases, when the benign activity comes within the effects radius of the established activity, the established activity is acting within the rules of the relevant plan. Notwithstanding, complaints can be the first sign of a ground swell of opposition that can chip away at the lawfully established activity. It is this ground swell and its growth which can create potential to compromise the sustainable management of the established activity.

Complaints, whether justified or unjustified in terms of the provisions of the district plan, are just one of the elements that contribute to the reverse sensitivity effect as claimed by the owners of the Airport. As we understand the Airport’s case, it is the combination of a number of elements including complaints, lobbying of politicians, submissions on future district plans and the like which create reverse sensitivity effect.”

38. In *Auckland Regional Council v Auckland City Council*²⁸ the Court rejected submissions that people are best to judge their own needs in the sphere of reverse sensitivity. The Court stated²⁹:

²⁵ It is noted for completeness that a very similar definition has been adopted in QLDC and appeals against the 2GP Decisions in Dunedin seek inclusion of the definition.

²⁶ (2003) 10 ELRNZ 16

²⁷ *Independent News Auckland Limited v. Manukau City Council* (2003) 10 ELRNZ 16 at [63]-[64]

²⁸ [1997] NZRMA 205

²⁹ *Auckland Regional Council v Auckland City Council* [1997] NZRMA 205 at page 12 – 13 paragraph 2.

“We do not accept the submission based on leaving promoters of enterprises to judge their own locational needs, not protecting them from their own folly, or failing to consider the position of those who come to a nuisance. We consider that those submissions do not respond to the functions of territorial authorities under the Resource Management Act...It would also fail to consider the effects on the safety and amenities of people who come to premises as employees, customers and other visitors”.

39. Rather than amenity, the reverse sensitivity effects for the Airport are a question of health and safety and potential loss of aircraft services. The pRPS 2021 protects the Airport from activities which may increase the risk of reverse sensitivity effects. The proposed putrescible waste landfill seeks to locate within 13 km of the Airport which represents a very high risk of bird strike. Even after mitigation the residual low risk of increased bird strike, as identified by Avisure continues to have the potential to increase risk of reverse sensitivity effects in a way inconsistent with the protections afforded by policy EIT-INF-P15.

Operational needs

40. Health and safety of people is expressly protected from waste facility development by Policy HAZ-CL-P18 of the pRPS 2021 and is also an operational and functional need of the Airport.
41. DIAL is obliged by the Civil Aviation Rules to maintain a safety management system comprising a safety policy, risk management process and safety assurance measures.³⁰ DIAL also has safety obligations under the Health and Safety at Work Act 2015. Central to both obligations is the identification of hazards and the evaluation and management of the associated risks.
42. The proposed landfill represents an operational safety risk to the Airport. Anything that may compromise this need is to be avoided. Therefore DIAL considers the landfill as proposed is to be avoided.

Smooth Hill site not chosen in accordance

43. The Applicants have placed great weight on the 1992 assessment³¹ which identified Smooth Hill, yet the Application seeks to locate closer than the 6.5 km which appears to have been the original buffer zone applied in that process. We note only one of

³⁰ Rule 139.75 and 100.3

³¹ Beca Steven Consulting Engineers, Dunedin City Council Refuse Landfill Study, Site Selection Report, January 1992 provided as part of the Original Section 92 Response.

the 10 shortlisted sites was both remote from flight paths and outside of the 13 km radius³².

44. The Application asserts that with proper management the risk of bird strike can be managed despite departing from best practice in siting a putrescible waste landfill too close to the Airport. Proper management cannot overcome this fundamental flaw nor zoning, nor designation. It relies on the absence of human error for 55 years of landfill operations. Too close is simply too close especially where the Avisure report notes, once bird populations establish, management will not eradicate them.
45. There are 14 tiers³³ of mitigations proposed which suggests that some failure is anticipated. The Application does not address what happens if they should all fail or for that matter during the anticipated periods of higher risk while any give intervention is unsuccessful. What happens if things do not go as intended?
46. International Guidance indicates that mitigation is only appropriate in the event that it is not possible to close a waste management site in the vicinity of an aerodrome. That is not the case here. Instead the overwhelming thrust of the guidance and the guidelines is that the landfill activity should be prevented from establishing where it poses a risk to airport operations.³⁴
47. The approach taken is all the more concerning given that the Application recognises that a viable alternative exists³⁵:

“Export of waste (while viable) presented risks and uncertainties in terms of the capacity to accept waste, waste acceptance criteria, and resource consent constraints on the operation of the out of district landfills.”
48. DIAL submits that a very high risk of bird strike is certain on the evidence provided by the Applicant. The Airport is specifically protected from this risk by the policy framework. In these circumstances it is not open to the Applicant to consider ‘risks and uncertainties’ of a viable alternative to outweigh the clear policy direction and international guidance in relation to Airport safety.

³² WasteMINZ (2018) Page 57, footnote 2.

³³ Boffa Miskell Limited Smooth Hill Landfill – Bird Management, Draft Management Plan 4 June 2021, at 2.1-3.4.3

³⁴ Section 4.4.7 of ICAO Airport Services Manual Doc 9137 5th Ed. 2020 in Table 3 of Appendix 2 to the Application

³⁵ Further Response August 2021

Relief Sought

49. DIAL seeks the consent authority decline the Application.



11 November 2021

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