

**BEFORE THE COMMISSION
APPOINTED BY THE OTAGO REGIONAL COUNCIL**

UNDER the Resource Management
Act 1991 (RMA)

IN THE MATTER Of an application by Dunedin
City Council for resource
consent being processed with
reference RM20.280

BY **DUNEDIN INTERNATIONAL
AIRPORT**
Submitter

STATEMENT OF EVIDENCE OF DANIEL DE BONO

DATED 6 MAY 2022



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STATEMENT OF EVIDENCE OF DANIEL DE BONO

Introduction

1. My name is Daniel De Bono. I am the General Manager Operations and Infrastructure at Dunedin International Airport Limited (**DIAL**). I have been in this role since October 2021. I have held numerous management roles throughout New Zealand aviation industry over the past 16 years, including tenures at Wellington International Airport Limited, Airways New Zealand, Queenstown Airport Corporation Ltd and Dunedin Airport prior to returning to DIAL in 2021. I am also a trained pilot, holding a New Zealand Private Pilots License.
2. I am responsible for the leadership & management of Dunedin Airport's compliance, safety, security, infrastructure, operational and service delivery functions. This includes, but is not limited to, airfield operations, the airport emergency service, wildlife hazard management, infrastructure projects and the operation & maintenance of airport infrastructure.
3. I hold a Bachelor of Aviation Management and am a nominated senior person on Dunedin Airport's Aerodrome Operating Certificate as issued by the Civil Aviation Authority of New Zealand (CAA).
4. The purpose of this evidence is to describe the nature of DIAL's operations including the physical context in which they occur. In this evidence I set out:
 - (a) the physical and regulatory environment the Airport operates in
 - (b) the relationship between the flight paths of aircraft arriving and departing the Airport and the proposed Smooth Hill landfill site

The Physical Environment

5. DIAL owns and operates the Airport on a 300-hectare site at Momona on the Taieri Plains 22 kilometres west of Dunedin's city centre.

6. In addition, DIAL owns land adjacent to the Airport which is dairy farmed in partnership with a sharemilker and a small residential housing estate which provides rental income.
7. 6 km southwest of the Airport is the Waihola-Waipori-Sinclair Wetland Complex (**Wetland Complex**) covering an area of approximately 6,000 hectares. This regionally significant wetland is home to a high number of bird species including black backed gulls. The Wetland Complex contributes to the existing wildlife hazard that DIAL manages.

Existing Bird Hazard

8. The Airport's physical proximity to the Wetland Complex and its substantial bird habitat elevates the bird strike risk.
9. This is a fixed risk. Neither the Airport nor the Wetland Complex can sensibly locate elsewhere.
10. DIAL must manage this elevated risk because of the significance of the values protected in the Wetland Complex. However this is not the only risk contributing to the airports bird-strike risk. As the Preliminary Bird Hazard Assessment notes in summary¹:

“Southern Black-backed Gulls present the greatest aviation risk owing to their size, flocking nature, current local population size, utilisation of the existing Green Island Landfill, preference for putrescible waste, ability to soar, opportunistic response to food from farm paddocks and their ability for population growth based on artificial food supply leading to spill over into the general environment.”

11. The evidence shows the existing environment already carries an elevated bird strike risk profile which makes it particularly sensitive to further increases in bird activity.
12. DIAL is required by the CAA to establish and maintain a programme to minimise and/or eliminate wildlife hazard. Our compliant bird control programme is principally made up of 3 distinct components:
 - (a) Day to day bird control/harassment duties, which includes the use of gas guns, kites, traps, decoys, pyrotechnics and firearms;

¹ Boffa Miskell – Smooth Hill Landfill Preliminary Bird Hazard Assessment

- (b) Maintenance of ground cover to minimise and discourage birds, including regular airfield inspections, mowing and selected ground cover treatments to minimise bird flocking, feeding or nesting; and
 - (c) Monitoring & reporting of bird activities at the airport.
13. The Director-General of Conservation has authorised² DIAL to disturb or kill protected bird species within the boundaries of Dunedin Airport, and conditionally outside of the airport boundary up to a distance of 13km in accordance with a hierarchy of controls as follows:
- (a) Monitoring – monitor species, habitats and patterns of bird behaviour within the aerodrome boundary;
 - (b) Passive – efforts to reduce the attractiveness of the airport to birds;
 - (c) Active – Disturb birds to prevent establishment of nests on site;
 - (d) Lethal – Reinforcement of active control with lethal control if non-lethal control is not effective in eliminating the hazard.

The Regulatory Environment

14. Aerodrome operations are a highly regulated, safety sensitive activities. I adopt the evidence of Sean Rogers of the CAA and do not repeat it here.
15. It suffices to note that the aircraft types & passenger volumes which pass through Dunedin Airport mean it must hold a CAA Part 139 Operating Certificate.
16. Part 139 certification requires the Airport to provide infrastructure that satisfies certain physical characteristics commensurate with the aircraft types using the airport and prescribe operating requirements that ensure the safe, secure and effective operation of the airport.

² Wildlife Act Authority for wildlife located on public conservation land and other land for a term 15 June 2016 to 31 May 2026.

Flight Path Data

17. Air Traffic Management (ATM) is provided by Airways New Zealand, which is the organisation that provides air traffic control in Dunedin and elsewhere in the country as the sole provider of Air Navigation Services in New Zealand. DIAL is the owner and operator of the airport infrastructure, with the provision of an Aerodrome Control Service provided on its behalf by Airways New Zealand. Our job is essentially the provision of safe airport infrastructure to support the movement of air traffic.
18. Airways New Zealand provides surveillance track data to DIAL on request. I requested aircraft track data in the vicinity of Smooth Hill from Airways New Zealand. Figure 1 shows this data in the form of flight paths flown by aircraft departing Runway 21 over the period from August 2021 to February 2022.
19. This seven-month period coincided with a reduced COVID-19 schedule with fewer than normal flights. With the re-opening of New Zealand's borders we anticipate the volume of flights will increase substantially. Nevertheless the colour coded track data below shows a pattern of movement roughly in accordance with what I was expecting to see, from experience.

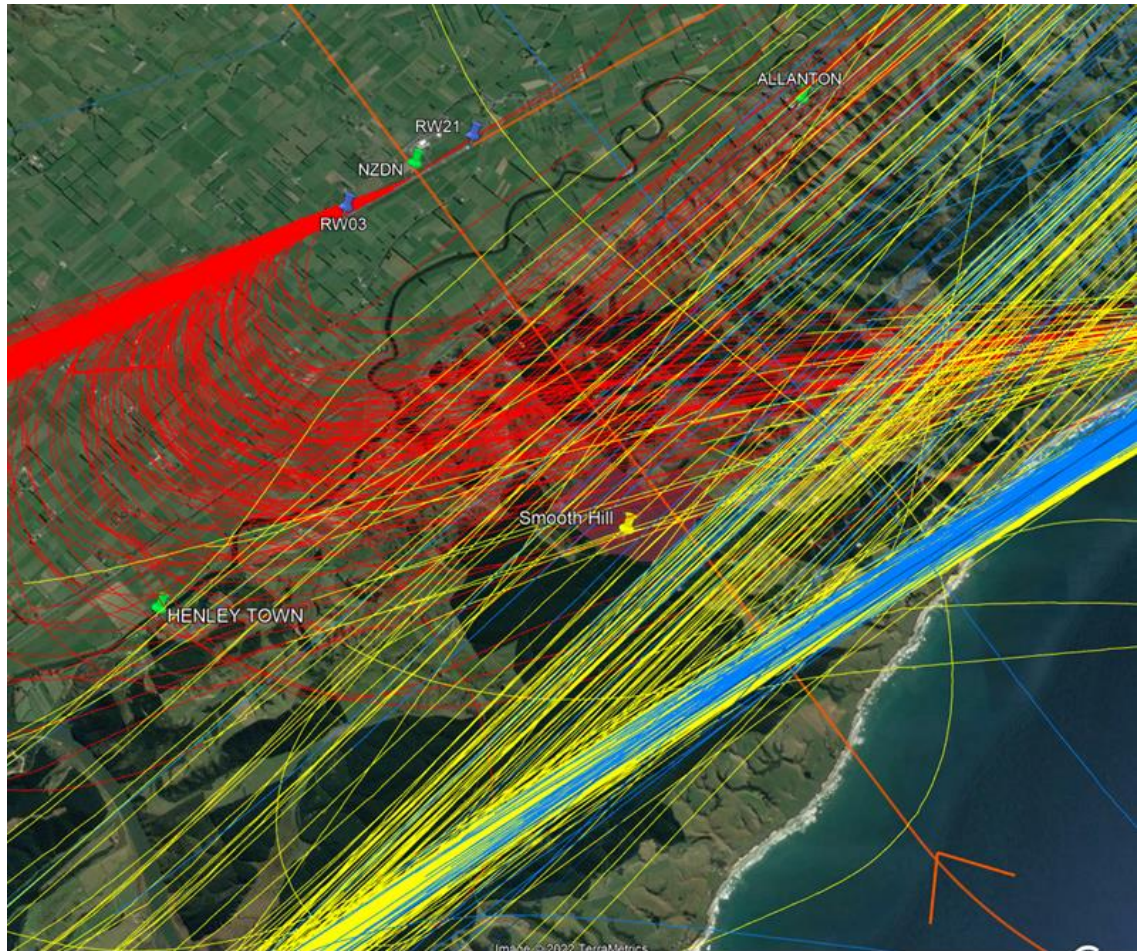
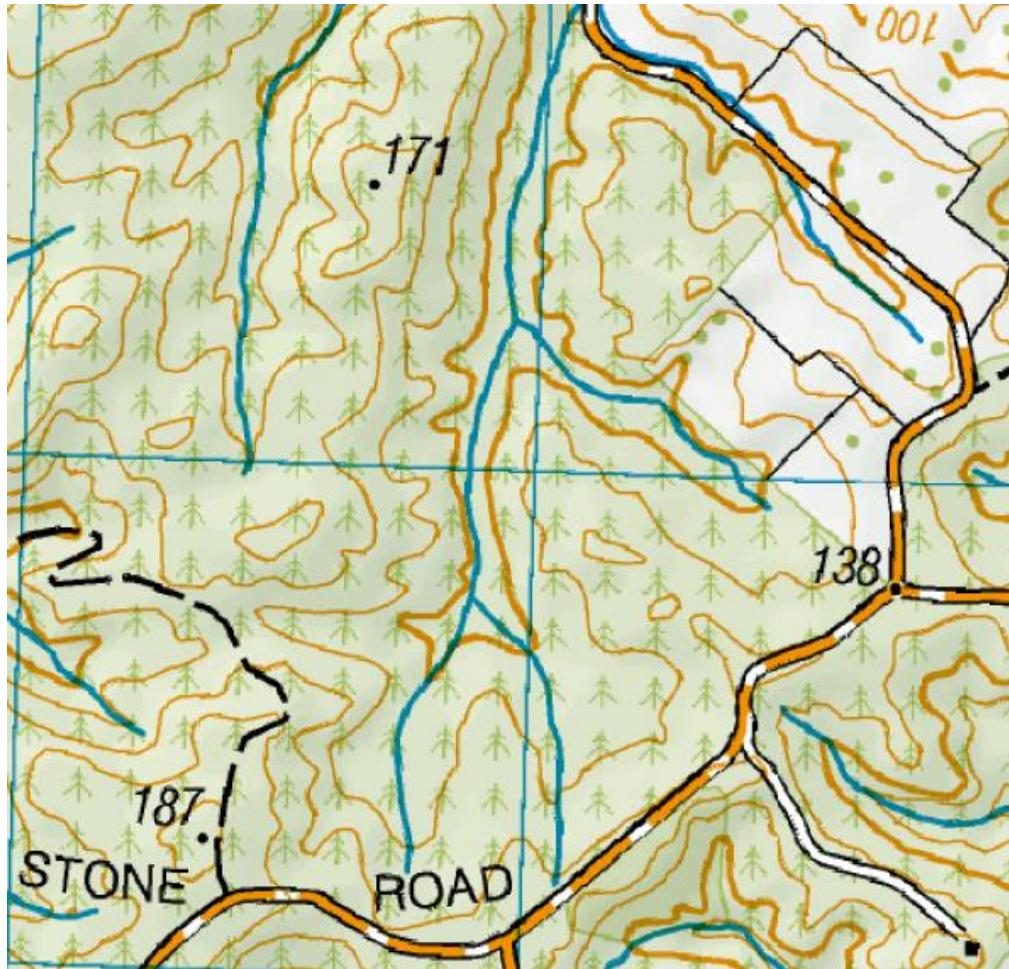


Figure 1

20. The Airport is marked on Figure 1 with a green pin. The southern end of the runway is shown as RW03. The Smooth Hill site is marked with a yellow pin. The blue lines show aircraft traveling over 10,000 feet above sea level. The yellow lines show aircraft traveling between 5,000 and 10,000 feet above sea level. The red lines show aircraft traveling between the surface and 5,000 feet above sea level.
21. The ridgeline on Big Stone Road above the Smooth Hill site is at approximately 140m above mean sea level, or approximately 460 feet.³ I attach an excerpt from a topographical map showing the elevation of the site. The importance of this is to understand that if an aircraft flying at an altitude of 2,000ft as it crosses the site, it is only 1,640 feet above ground level (AGL) as it tracks over the site.

³ The convention in aviation is that altitude is expressed in feet rather than the metric equivalent.



22. It is the densely packed red flight paths where the risk of bird strike is highest. The aircraft flight track data shown includes take-off departure procedures to the south⁴ under visual conditions in which the flight crew are free (with clearance from air traffic control) to undertake a visual departure rather than follow the predetermined instrument departure procedure. In Dunedin, this is common in visual meteorological conditions (VMC) when flight crew can elect to take a left-hand visual departure following a north-easterly track up Otago Harbour to then intercept their predetermined flight plan to continue onwards to Christchurch, Wellington or Auckland. This can be for scenic reasons, at the request of Air Traffic, or the crew seeking to reduce aircraft track miles in order to reduce flight time & fuel burn.

⁴ Aircraft must generally take-off or land into a head wind.

23. The red paths in particular take aircraft directly through the hazard altitude zone should soaring birds (especially Black Back Gulls) soar above the Smooth Hill site.
24. In addition to aircraft taking off & landing at Dunedin Airport, the airspace above Smooth hill serves another important purpose. Light visual flight rules (VFR) aircraft use a large portion of designated airspace (VFR transit lane⁵) to the east of the airport, which encompass the Smooth Hill site, in order to bypass Dunedin Airport's controlled airspace. This is used for aircraft flying from airfields to the south (e.g., Balclutha, Gore, Mandeville, Invercargill) heading north to bypass Dunedin Airport (e.g. to Taieri, Oamaru and Timaru). This VFR transit lane has a ceiling of 1,500 ft above mean sea level which these light VFR aircraft fly at or below.
25. Light VFR aircraft, whilst slower than large commercial aircraft, are particularly vulnerable to bird strike because of their lower operating altitudes, lighter construction and generally single-engine, single pilot configuration. A black back gull through the cockpit window of a Cessna could lead to a catastrophic outcome.
26. DIAL has limited ability to influence an aircraft flight path. The best we can do when we are aware of a hazard (such as occasionally occurs at the aerodrome) is to advise Air Traffic Control and issue a Notice to Airmen (NOTAM) alerting aircraft operators to the hazard.
27. The ability to warn aircraft operators of bird hazards is the reason why DIAL has been working with the Dunedin City Council to establish a Bird Management Operational Group (Mr Dale's proposed condition 82). The purpose of that exercise from DIAL's point of view is to give DIAL prompt access to bird monitoring data that would give some indication that there is a hazard issue that needed to be urgently addressed.

⁵ Airspace boundaries and designations are determined by the Civil Aviation Authority of New Zealand.

28. I acknowledge the progress made in that regard, but I remain concerned about the timeliness of remedial action.
29. Suppose 20 Black Back Gulls appear at the Smooth Hill landfill. They are an immediate danger to aircraft. DIAL will not know about that danger for up to 24 hours (assuming perfect reporting compliance). The escalation of responses under proposed condition 80 (shooting, poisoning, installing wires, bailing waste) may take days or weeks to be effective (or not). In all that time, there is a new and unacceptable danger to aircraft while someone figures out how to get rid of them.
30. If there are 12 exceedances within a year, and netting is required (or required by the Bird Management Operational Group), I have no specialist knowledge of how long it would take to erect the kind of netting structures shown in Mr Phil Shaw's evidence at paragraph 69. Being familiar with construction project management, I would guess at more than 6 months, by the time funding, design, ordering, delivery from overseas, and installation takes place.
31. I accept Mr Shaw's opinion that it ought to be possible to manage bird numbers so that the aviation risk is not increased at Dunedin Airport, if Smooth Hill is actually a non-putrescible facility⁶. However, even then, there is still a lag between the arrival of the problem (birds) and the implementation of the management response that is not addressed, and what happens in the meantime. Escalation of management responses will always be days, weeks, or months behind the arrival of the problem, leaving a significant risk to public safety in the meantime.
32. The timeliness of responses is a particular concern in the context of the Dunedin City Council still wishing to receive Highly Odorous Wastes and contaminated putrescible waste (Mr Dale's conditions 43 and condition 75/appendix 3). Disposal of those waste types at Smooth Hill is unacceptable to DIAL.
33. My experience at Dunedin Airport, Wellington Airport, Queenstown Airport and Wanaka airport, is that wildlife management is a persistent,

⁶ Evidence of P Shaw, paragraph 68, last sentence.

time consuming, and frustrating challenge that is unpopular with staff and the public. And that is when we (airport staff) are highly motivated to do the job properly.

D De Bono

5 May 2022