



NEW ZEALAND AIR LINE PILOTS' ASSOCIATION

SUBMISSION BY NZALPA RE SMOOTH HILL LANDFILL APPLICATION FROM THE DUNEDIN CITY COUNCIL

NZALPA is a professional association and independent union. Established in 1945, NZALPA represents over 2,600 pilots, air traffic controllers and flight service operators and is the Voice of Aviation in New Zealand. We are a founding member of the International Federation of Air Line Pilots' Associations (IFALPA) in 1945, and the Global Air Traffic Controllers Alliance (GATCA) in 2018, and we are actively involved with IFALPA, GATCA and the International Federation of Air Traffic Controllers' Associations (IFATCA).

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**).

NZALPA is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991 (**RMA**).

NZALPA Position

NZALPA opposes the application for the following reasons:

NZALPA Submissions

Birds and wildlife are a serious hazard to aircraft. The frail structures of early aircraft made them susceptible to wildlife strike damage.

Modern development of aircraft has progressed to produce aircraft that are significantly more resistant to wildlife strikes. Nevertheless, significant strikes continue to occur regularly worldwide, often with devastating consequences.

Perhaps the most famous bird strike in recent years took place on 15 January 2009, when an Airbus A320 hit a flock of Canada geese (*Branta canadensis*) just after taking off from LaGuardia Airport, New York City. The ingestion of multiple geese into both engines resulted in a forced emergency landing on the Hudson River. All 150 passengers and five crew members survived.

A more recent wildlife strike resulting in fatality was on 28 September 2012, when a Dornier Do-228 with sixteen passengers and three crew members was on initial climb out of Kathmandu Airport. The crew reported a bird strike, resulting in a fatal crash that killed all on board. The bird was identified as a black kite (*Milvus migrans*).

NZDN is serviced by A320 aircraft, amongst others.

Currently NZDN averages approximately seven bird strikes per 10,000 aircraft movements which places it amongst the highest strike rates for aerodrome in NZ with a risk category of Medium. NZDN on-aerodrome strike rates have regularly exceeded the national average of 4.3 for the last two years.¹

ICAO

New Zealand is a signatory to the International Civil Aviation Organisation (ICAO) and as such is obligated to adhere to the ICAO Standards and Recommended Practices (SARPS). Although not legally enforceable, ICAO SARPS are expected to be implemented throughout the New Zealand aviation system.

ICAO provides guidance to airport operators on Wildlife Control and Reduction through its Airport Services Manual Part 3.

This manual has been peer reviewed and approved by the world's bird/wildlife control experts from the International Bird Strike Committee, led by the United Kingdom Civil Aviation Authority and endorsed by the International Federation of Air Line Pilots (IFALPA) of which NZALPA is a founding member.

ICAO also provides guidelines for the Avoidance of Bird Hazards in ICAO Doc 9182 Appendix 2 of the Airport Planning Manual.

ICAO Doc 9182 Appendix 2 describes how various land uses may be graded in two areas, Areas A and B, surrounding an airport. These areas are drawn up by describing two concentric circles (radii of 3 and 8 km, respectively) around an airport, centred on the Airport Reference Point. Any land use that has the potential to attract birds to the airport vicinity should be the subject of a study to determine the likelihood of bird strikes to aircraft using the airport. Any Municipal Utility that includes food garbage disposal (putrescible waste) is not recommended in both Areas A and B.

The Application seeks to locate the proposed Smooth Hill Landfill, a Class 1 landfill, 4.5 km from Dunedin International Airport (**Airport**), well inside the 8km radius described above.

The ICAO Airport Services Manual Part 3 goes on to state that:

¹ NZCAA *Bird Incident Rate Report June 2021*

4.7.1 Birds that are not present on the airport but overfly the airport or its approaches and climb-out areas may also come into conflict with aircraft. Off-airfield monitoring of bird species and behaviour should occur and should include species, flight-lines, seasonal patterns, time of day, etc.

4.7.2 Any significant bird/wildlife attractants within a defined radius (the exact distance will be dependent upon local or State regulations) centred on the aerodrome reference point (ARP) should be assessed and a management plan developed to reduce their attractiveness to birds/wildlife. While it is understood by leading bird/wildlife experts that an ARP might not always be centred exactly on the geographic centre of an aerodrome, typically a 13 km (or 7 NM) circle is considered a large enough area for an effective wildlife management plan. However, as necessary, action should also be taken when the bird/wildlife attractants are outside the 13 km circle if the airport operator has any influence on planning and development issues.

This 13 km recommendation is repeated in the NZCAA Guidance material for land use at, or near aerodromes - June 2008.

NZALPA notes in the study prepared by Boffa Miskell Ltd titled "Smooth Hill Landfill – Bird Management Draft Management Plan" dated 4 June 2021, as part of the consent application there is identified concern of the risk of bird strike:²

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. 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 (NZCAA) 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. Consequently, it is of the utmost importance that landfills within 13 km of airports (i.e. Smooth Hill) are carefully planned, monitored and operated appropriately to mitigate bird strike risk and manage this risk to acceptably low levels.

Bird Hazard Mitigation

The above Boffa Miskell Draft Management Plan outlines Bird Deterrent and Control Methods. The report admits that birds cannot be allowed to establish at the site, as once resident at a site it can be very difficult to disperse them.

Whilst suggested deterrence methods, including shooting and poisoning, may deter birds from nesting at the site, it is doubtful that such measures will totally prevent attracting birds greater than 50 grams in size, especially black-backed gulls, as identified in the plan. As described, there is a large local population of black-backed gulls in Dunedin, including at least 3,000 birds at

² Boffa Miskell Ltd Smooth Hill Landfill – Bird Management Draft Management Plan dated 4 June 2021

Green Island Landfill, which is proposed to close in the next few years. Obviously once closed these birds will seek an alternative food source.

Interestingly the plan notes that without mitigation,³ *“the preliminary bird hazard assessment concluded that there is a very high risk to aviation from the landfill (Avisure, 2021). However, the risk can be managed to an acceptably low level with mitigation, involving multiple actions and based on an escalating response if initial mitigation actions are not successful.”*

NZALPA does not believe that this mitigation proposal takes into account the already elevated medium bird hazard risk level that already exists at NZDN.

Resource Management Implications

We hold health and safety concerns relating to the potential for bird strike, which are recognised by the Draft Management Plan. The potential consequences have a high degree of severity (or harm) associated with them. This therefore places a greater burden on the Council under the Health and Safety at Work Act 2016 to eliminate the risk of potential harm. Our proposed elimination is that the proposal for locating the landfill at Smooth Hill be taken no further. In our view, mitigation measures and controls will not be able to minimise the resultant risk to a level that is acceptable given the degree of harm.

Furthermore, these safety concerns are of such nature that they bring into question whether locating the landfill at Smooth Hill is consistent with the principle of sustainable management of natural and physical resources. The safety of people and their communities is a key consideration in s 5(2) of the Resource Management Act 1991. The location of a landfill at Smooth Hill would negatively impact on the potential of the airport, as a resource, to meet the reasonably foreseeable needs of the local community.

We are also concerned at the potential reverse sensitivity impact on NZDN. NZDN is one of a few international airports in New Zealand. As such, it can function as an important alternate airport for flight paths into Queenstown and Christchurch airports. It is both a nationally and regionally significant infrastructure asset. The location of a landfill in its proximity will lift the regulatory burden on it to mitigate the risk of bird strike. It also has the potential to lead to complaints and public criticism if necessary mitigation measures are harmful to the wildlife in question. These are not amenity-related reverse sensitivity concerns. Rather, they are safety-related concerns. Approval would increase the burden on the airport, and at the same time open it to public criticism, thus stretching the resources of the airport.

Summary

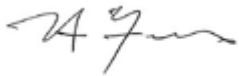
Dunedin Airport already has an elevated bird hazard risk, as seen in the latest NZCAA Bird Incident Rate Report, well above the national average.

³ Boffa Miskell Ltd Smooth Hill Landfill – Bird Management Draft Management Plan dated 4 June 2021 1.1.1

NZALPA believes the Smooth Hill Landfill as proposed will significantly exacerbate the problem, causing unnecessary danger to our members and the travelling public.

The proposed landfill represents an unacceptable risk to the Airport and NZALPA considers the risk mitigation measures are insufficient to reduce this risk to acceptable levels.

NZALPA submits that this application as it stands should be declined.

A handwritten signature in black ink, appearing to read 'H Faris', with a stylized flourish at the end.

Hugh Faris
Technical Director

10 November 2021