

Before an Independent Hearings Panel  
appointed by the Waimakariri District Council

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*under:* the Resource Management Act 1991

*in the matter of:* Submissions and further submissions in relation to the  
proposed Waimakariri District Plan, Variation 1 and  
Variation 2

*and:* Hearing Stream 1: Part 1 General Matters, Definitions,  
Strategic Directions and Urban Form and Development.

*and:* **Christchurch International Airport Limited**  
Submitter 254

Statement of Evidence of Felicity Hayman

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## **STATEMENT OF EVIDENCE OF FELICITY HAYMAN**

### **INTRODUCTION**

- 1 My full name is Felicity Jane Hayman.
- 2 I am the Environment and Planning Manager in the Planning and Sustainability team at Christchurch International Airport Limited (CIAL). I have held this role since March 2018.
- 3 My qualifications include a Bachelor of Science with Honours from the University of Canterbury.
- 4 I have been authorised by CIAL to provide evidence in relation to its submission (#254) and further submission on the proposed Waimakariri District Plan (*Proposed Plan*). I am familiar with the content of CIAL's submission and further submission.

### **Scope of evidence**

- 5 My evidence will deal with the following:
  - 5.1 An overview of CIAL, including CIAL's operations in Waimakariri District; and
  - 5.2 Reverse sensitivity and incompatible activity issues affecting CIAL operations.

### **ABOUT CIAL AND CHRISTCHURCH INTERNATIONAL AIRPORT**

- 6 CIAL is an airport company established under the Airport Authorities Act 1966. Section 3 of that Act confers the power on CIAL to establish, improve, maintain, operate and manage the Christchurch International Airport (*Christchurch Airport*). Christchurch Airport is the largest airport in the South Island and the second-largest in the country. It connects Canterbury and the wider South Island to destinations in New Zealand, Australia, Asia and the Pacific.
- 7 CIAL owns the airport terminal, airfields, and surrounding land totalling approximately 859 hectares.<sup>1</sup> CIAL's wider interests (including land leased by CIAL) total some 1,052 hectares. CIAL works closely with many other businesses on the airport campus including passenger airlines, the Airways Corporation, the US Antarctic Program, air cargo operators, warehousing and aviation specialists, rental car companies, retail and food outlets.
- 8 Importantly, Christchurch Airport has a significant advantage over other airports in New Zealand, and in the southern hemisphere, as it operates without a curfew and without restrictions as to the types of

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<sup>1</sup> This includes the Antarctic Centre site.

aircraft that can use the Airport. The ability of the Airport to operate 24 hours a day facilitates overnight freight movements and arrival/departure of international passengers and aircrafts requiring maintenance, and is integral to the future economic and social wellbeing of people and the communities of greater Christchurch and the South Island.

### **Significance of Christchurch Airport to the local and regional economy**

- 9 The activities at Christchurch Airport make a significant contribution to the regional and national economy which is explained in detail by Ms Hampson. CIA is a significant employment hub with a large variety of businesses located on campus. Furthermore, in 2018, just under just under 7 million travelling passengers and their associated meeters and greeters passed through Christchurch Airport. This is the most recent representative year pre-COVID-19 but all projections indicate that passenger and visitor numbers will return and thrive.

### ***Non-passenger services***

- 10 The non-passenger services offered by CIAL are highly valued and further support Christchurch Airport as a significant physical and economic resource:
- 10.1 Christchurch Airport is home to several international Antarctic science programmes and their associated facilities. As the departure point for the majority of the world's Antarctic scientists, considerable economic and societal benefits are brought to the region, the country, and the world by the operation of these facilities. The Antarctic
- 10.2 The Christchurch Engine Centre (*CHCEC*), a joint venture partnership since 2001 between Pratt & Whitney and Air New Zealand Limited is also located at Christchurch Airport. The CHCEC provides engine overhaul and repair services which continues to attract third party work from around the world.
- 10.3 Christchurch Airport is also the primary air freight hub for the South Island, playing a strategic role in New Zealand's international trade as well as the movement of goods domestically. This is discussed further below.

### ***Freight connectivity***

- 11 Airfreight is becoming increasingly important due to decreased viability, considerable delays and record high prices associated with land transport. This is particularly prevalent in food and beverage industries, with airfreight connections such as CIAL's helping to preserve jobs and industries across New Zealand.

- 12 In 2019 the value of international trade through Christchurch Airport amounted to \$4.4bn, representing about 17% of the total international trade of the South Island. The value of goods transported through Christchurch Airport makes it the second largest South Island import gateway after the port of Lyttelton and the third largest South Island export gateway after Lyttelton and Port Chalmers.<sup>2</sup>
- 13 Prior to the emergence of COVID-19 about 90% of New Zealand's airfreight was carried in passenger aircraft. Initially through the Government's International Air Freight Capacity (IAFC) scheme, and then the Maintaining International Connectivity (MIAC), funding has been provided to airlines for dedicated freight flights to ensure New Zealand's high value export products reach international markets. Christchurch Airport has played a critical role in New Zealand's ability to respond to and recover from the impacts of COVID-19 through these schemes.
- 14 Airlines have become more interested in airfreight as an important revenue stream.<sup>3</sup> Christchurch Airport has some of the best infrastructure to grow the airfreight export market in Christchurch, providing warehousing and freight forwarding facilities, a long runway and no curfew. Ensuring that it's easy to move New Zealand's high-value exports out of the country via the Airport provides benefits for greater Christchurch and the entire South Island.

#### **Transport network resilience and connectivity**

- 15 Airports facilitate a global transport network that is resilient to the effects of natural disasters and extreme weather events. Christchurch Airport provides a key link for both freight and passengers when other land-based networks in the South Island are compromised. For example, the Canterbury floods of May 2021 and the significant rain events in Canterbury and the West Coast in 2019 caused significant damage to the land transport network and closed off areas of the South Island from the rest of the country. Aviation, and specifically Christchurch Airport, was relied upon for freight and passenger travel while other parts of the transport network were repaired.
- 16 The ongoing impact of climate change means that New Zealand roads and rail remain susceptible to extreme weather events and natural disasters. This highlights the importance of the Airport's

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<sup>2</sup> *Review of international and domestic freight trends through Christchurch International Airport*, Richard Paling International and domestic airfreight assessment June 2022.

<sup>3</sup> Including growth of e-commerce in the retail sector. Christchurch Airport is an important hub for this type of trade given the range of facilities located on or near the Airport campus.

operation to provide a regional, national and global connection when the land transport system is compromised.

### **CIAL's responsibilities**

- 17 CIAL is responsible for ensuring Christchurch Airport meets all safety and compliance requirements for passengers, visitors and aircraft. CIAL has its own Fire Service with state of the art fire fighting vehicles, over 42 firemen, and a wildlife management team consisting of a manager and two full time Wildlife Officers, whose role is to keep the airfield as free of birds as possible and deploy CIAL's on airport and off-airport bird strike risk management programme.
- 18 We also work closely with government agencies such as Customs, Immigration, Ministry of Agriculture and Fisheries, Aviation Security and Airways.
- 19 Regular activities for CIAL include:
- 19.1 patrolling the airfield;
  - 19.2 maintaining runways;
  - 19.3 ensuring the terminal building is safe, clean and warm;
  - 19.4 ensuring services such as power, water, stormwater discharges and transport are available for all businesses on the Christchurch Airport campus;
  - 19.5 managing car parking facilities;
  - 19.6 planning for future growth; and
  - 19.7 ensuring that airlines, passengers, visitors and tenants have the services they need.
- 20 My team work alongside stakeholders, regulators and airport users to facilitate on and off airport resource management and environmental issues. For example, we liaise with Airways (New Zealand's air navigation service provider) and the aircraft maintenance sector to ensure Christchurch Airport's noise footprint in the Canterbury region is appropriately managed. We also work with applicants, district councils and acoustic experts to protect the Airport from reverse sensitivity effects and the establishment of incompatible activities.

### **Future growth and developments**

- 21 The most recent revision of the Airport Master Plan (2016) identifies the following expected growth levels to 2040:

- 21.1 Passenger Movements to grow from 2018 levels of 6.9 Million (5.1 Million Domestic; 1.8 Million International) to 11.7 Million in 2040 (7.6 Million Domestic; 4.1 Million International);
- 21.2 Passenger Aircraft Movements to grow from 2018 levels of 72,000 movements (61,000 Domestic; 11,000 International) to 111,000 in 2040 (90,000 Domestic; 21,000 International); and
- 21.3 Cargo Aircraft Movements to grow from 2018 levels of 3,100 movements to 4,200 in 2040. It must be noted that in addition to these cargo specific aircraft movements, the clear majority of air cargo to and from Christchurch is carried in the belly hold of commercial passenger aircraft (see domestic and international movement growth above).
- 22 Despite the unusual and unprecedented changes in these patterns as a result of the global COVID-19 pandemic, all projections indicate that growth at Christchurch Airport is likely to follow these expected levels.
- 23 CIAL believes that Aotearoa is well placed to be an early adopter of future aviation technology, including having domestic aviation fully transitioned to a low emissions fleet. There is also potential for fuel cell technology to decarbonise New Zealand's 'narrow body' fleet, enabling Trans-Tasman carbon free travel/freight. Sustainable Aviation Fuel has the immediate potential to reduce aviation emissions by up to 80%, compared with conventional aviation fuel as a direct replacement fuel to fossil-based jet fuel, and not requiring different infrastructure or engine technology.
- 24 CIAL is committed to providing the infrastructure to support future low emissions aviation decoupled from fossil fuels.

### **REVERSE SENSITIVITY AND PROTECTION OF AIRPORT OPERATIONS**

- 25 Christchurch Airport itself is located in Christchurch City, not in the Waimakariri District.
- 26 However, Christchurch Airport operations are affected by land use activities in Waimakariri. It is important that the Proposed Plan recognises the significance of Christchurch Airport to the district and manages adverse effects on the Airport that arise from activities in Waimakariri.
- 27 There are two main aspects of reverse sensitivity and incompatible activities that are of particular concern to CIAL:

27.1 noise sensitive activities establishing within the 50dB Ldn Air Noise Contour (the *Noise Contour*); and

27.2 activities which have the potential to increase the risk of bird strike at Christchurch Airport.

28 I understand both of these matters are proposed to be considered in detail at future hearings. Below I provide a summary to demonstrate the importance of appropriate planning provisions.

**Noise sensitive activities within the Noise Contour**

29 Although Christchurch Airport is physically located within Christchurch City, planes landing and taking off at the Airport using the main runway fly over Selwyn and Waimakariri Districts. The effects of airport operations are therefore felt across the three districts, making the management of noise effects a cross boundary issue for all three district councils, as well as a strategic regional issue for the Canterbury Regional Council.

30 Airport operations create unavoidable noise that negatively impacts on the amenity and comfort of people living in proximity to runways and predominant flight paths. In this respect, a large body of national and international experience and research demonstrates that if a group of residents are annoyed by airport noise then they are likely to seek to have the operations of airports curtailed either through curfews and/or impose restrictions on the type of aircraft which can operate at those airports. This is especially so when new areas of residential zoning are developed in close proximity to airports (and their associated flight paths) and large groups of new residents move into their 'dream' homes and find that they are adversely affected by aircraft noise.

31 For Christchurch Airport in particular, these risks are significant as the ability to continue to operate without curfews is fundamental to maintaining and growing existing passenger, freight and aircraft maintenance services that are scheduled during periods likely to be subject to such a curfew.

***Planning rules***

32 Reverse sensitivity related to airport noise is managed in planning documents through controls on the density of residential development and other sensitive activities in proximity to Christchurch Airport, through rules applicable to the Air Noise Contour. Relevantly for the Proposed Plan, the Canterbury Regional Policy Statement sets the framework for avoiding noise sensitive activities within the Air Noise Contour.

33 To safeguard Christchurch Airport operations, it is critical to CIAL that the Christchurch Noise Contour, and the policy position

underpinning it, is recognised in the Strategic Directions chapter of the Proposed Plan.

***Measures to address reverse sensitivity effects***

- 34 My team spend a lot of time managing proposals for further intensification of sensitive activities or new noise sensitive activities within the Air Noise Contour. It can seem, to those unfamiliar with this issue, that this type of activity would have a no more than minor impact on the airport for a single new dwelling. However, on an accumulated basis, sensitive development close to Christchurch Airport can have serious effects on operations.
- 35 For the most part, the Air Noise Contour in Waimakariri extends over land that is zoned rural. This is appropriate as it is a zone that allows only a low density of housing to establish, thus minimising the number of people who live under the Air Noise Contour, and also the types of activities that can establish. Sensitive activities such as high-density residential development, hotels, pre-schools, or hospitals (where people generally expect a quiet environment, especially at night) do not tend to take place in the rural zone.
- 36 CIAL would be very concerned if any land within the Air Noise Contour was rezoned to a more intensive or urban land use. The minimum rural lot sizes and residential density controls play a complementary role in avoiding sensitive activities developing under the Air Noise Contour. CIAL understand the need to provide housing capacity and business land in the district. However this development should not occur in a way that allows noise sensitive activities to establish and intensify within the Air Noise Contour.

***Complaints about aircraft noise***

- 37 In comparison to other airports across New Zealand, CIAL receives a proportionally low number of noise complaints, due to a long history of planning provisions that manage reverse sensitivity effects across all three districts. CIAL uses a metric of complaints per 10,000 movements to measure noise management performance, with a goal of keeping complaints below 10, per 10,000 movements.
- 38 From February 2017 to May 2023, 11 noise complaints have been received from addresses within the Waimakariri District. A further 50 complaints were received within the wider "Canterbury" region, with no district identifiers.
- 39 The complaints that CIAL do receive often originate from sites outside the noise contours. CIAL's efforts to minimise the number of noise sensitive activities within the contours have been integral in managing reverse sensitivity effects and the relatively low numbers of noise complaints can be attributed to the success of this framework. It is important that the planning framework continues to manage reverse sensitivity effects across the Canterbury region.



### **Bird strike**

- 40 Bird strike risk is a key threat to the safe operation of Christchurch Airport and CIAL takes this risk very seriously. For example, even if the risk of strike in a statistical sense is relatively low, it is beyond dispute that a single strike could have catastrophic effects.
- 41 CIAL is required to ensure Christchurch Airport meets all safety and compliance requirements for passengers, visitors and aircraft. Civil Aviation Authority (CAA) Rule 139.71 requires aerodrome operators to have an environmental management programme for minimising or eliminating wildlife hazard. Bird strike is a significant safety risk which requires diligent management and CIAL collaboration with local government and surrounding landowners.
- 42 Bird strike management is obviously important to CIAL and we take a number of steps both on and off-airport to ensure that bird strike risk is appropriately managed. We will present further detail on this at future hearings for the Proposed Plan, and CIAL will also call expert evidence on this issue when the specific rules for bird strike are being considered.
- 43 At a high level:
- 43.1 CIAL implemented a Wildlife Hazard Management Plan (*WHMP*) in 2008. This document has been regularly reviewed and updated since it was first developed.
  - 43.2 CIAL takes the implementation of the WHMP very seriously and there are staff available 24/7.
  - 43.3 CIAL, and airlines collect and record data on wildlife on and off the airport, near misses and strikes.
  - 43.4 Where required, CIAL engages with property owners to work on managing risk species.
- 44 CIAL maintains a watching brief on developments in the region which may impact the risk of bird strike, and works collaboratively with a variety of organisations to minimise the effect their activities may have on CIAL's operations. This includes proactively working with local government on planning documents which control land use activities within the vicinity of Christchurch Airport.
- 45 CIAL has a responsibility (including legal duties as in CAA Rule 139.71) to provide a safe airport operating environment and therefore must actively work to minimise the threat and incidence of bird strike around Christchurch Airport as well as on the airfield and land controlled by CIAL. Bird strike that occurs, for example through the creation of water bodies, refuse dumps, landfills, sewage treatment and disposal and agricultural activities, will affect the

ability of CIAL to provide this safe environment. CIAL is therefore heavily involved in bird management around the airport and is also a regular participant in planning processes which involve the potential creation of waterbodies or other suitable bird habitat.

- 46 The most consistent, effective and proactive means of off-airport bird strike management is the control of land-use activities through zoning and regulation of off-airport land.
- 47 In 2011, CAA produced an Advisory Circular<sup>4</sup> which provides aerodromes with an "Acceptable Means of Compliance" with Rule 139.71 Wildlife Hazard Management. The Circular sets out various management techniques for managing wildlife hazards, and states the following in relation to local authorities:

*"Local authorities are responsible for planning land use activities, and setting bylaws for wastewater treatment, landfills and parks and reserves including sports fields.*

*Local authorities should be told about the hazards and encouraged to develop land use restrictions and management techniques to minimise the presence of birds near aerodromes."*

- 48 CIAL considers that this Proposed Plan process is that opportunity to inform Council about the hazard and to seek clear rules in the Proposed Plan that would make landowners and potential developers better aware of bird strike risk.

### **REMODELLING NOISE CONTOURS**

- 49 As outlined in CIAL's submission, CIAL and Canterbury Regional Council are currently undertaking a process of updated the Christchurch Airport Air Noise Contours.
- 50 Policy 6.3.11(3) in the Canterbury Regional Council requires certain processes with respect to remodelling of the Air Noise Contours. CIAL engaged a team of independent experts in 2019 to carry out this work. To summarise the process so far:
- 50.1 In 2021 CIAL's experts completed the modelling work required as the first stage in the process and provided draft updated contours to Canterbury Regional Council for peer review by an independent expert panel. This work was made

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<sup>4</sup> Civil Aviation Authority, Advisory Circular AC139-16, Wildlife Hazard Management at Aerodromes

publicly available on CIAL's website<sup>5</sup> and is incorporated in CIAL's submission on the Proposed Plan.

- 50.2 Environment Canterbury's independent expert panel has peer reviewed the assumptions, inputs and modelling work undertaken by CIAL's experts. There has been ongoing correspondence between the experts in order to refine the approach.
- 50.3 The experts have agreed on the refined technical modelling inputs and assumptions. The final set of updated contours are expected to be confirmed soon.
- 51 CIAL and its experts will provide more detail on the final updated contours in subsequent hearing streams for the Proposed Plan.

### **CONCLUSION**

- 52 CIAL is committed to continuing its active role in managing reverse sensitivity effects and bird strike risk as much as possible. This is critical to ensure that Christchurch Airport, and all activities on its campus, can operate efficiently and with minimal disruption.
- 53 In CIAL's experience, proactive planning rules and clear policy direction is the most effective way to protect the community and safeguard Christchurch Airport. It is important that this is recognised in the Strategic Directions chapter of the Proposed Plan.

**1 May 2023**

**Felicity Hayman**

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<sup>5</sup> 2021 Christchurch International Airport Expert Update of the Operative Plan Noise Contours. For review by Environment Canterbury's Independent Expert Panel.