

Before the Selwyn District Council

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*under:* the Resource Management Act 1991

*in the matter of:* Proposed private plan change 71 to the Operative  
Selwyn District Plan

*between:* **Four Stars Development Limited and Gould  
Developments Limited**  
*Applicant*

*and:* **Christchurch International Airport Limited**  
*Submitter and further submitter (PC71-0004)*

Statement of Evidence of Felicity Jane Blackmore

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Dated: 31 January 2022

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## **STATEMENT OF EVIDENCE OF FELICITY JANE BLACKMORE**

### **INTRODUCTION**

- 1 My full name is Felicity Jane Blackmore.
- 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 As CIAL's Environment and Planning Manager, I work alongside stakeholders, regulators and airport users to facilitate on and off airport resource management and environmental issues. For example, I liaise with airways (New Zealand's air navigation reserve provider) and the aircraft maintenance sector to ensure CIA's noise footprint in the Canterbury region is appropriately managed. I also work with applicants, district councils and acoustic experts to protect the airport from reverse sensitivity effects and the establishment of incompatible activities.
- 4 My qualifications include a Bachelor of Science with Honours from the University of Canterbury.
- 5 I have been authorised by CIAL to provide evidence in relation to its submission (PC71-0004) and further submission on proposed Plan Change 71 to the Operative Selwyn District Plan (PC71). I am familiar with the content of CIAL's submission and further submission.

### **SCOPE OF EVIDENCE**

- 6 My evidence will deal with the following:
  - 6.1 an overview of CIAL and Christchurch International Airport;
  - 6.2 reasons why residential development is avoided in the 50dB Ldn Air Noise Contour;
  - 6.3 an explanation of the noise contour remodelling process, which is currently underway;
  - 6.4 response to Applicant's evidence.

### **OVERVIEW OF CIAL'S POSITION**

- 7 CIAL remains opposed to any residential zoning (deferred or otherwise) for land within the 50dB Ldn Air Noise Contour. There is a strict policy in the Canterbury Regional Policy Statement which requires this to be avoided.

- 8 There is no basis for the applicants' proposal to defer residential zoning for the land under the Contour on the assumption that the Contour will be updated and will no longer cover this land. The extent of the updated Air Noise Contour has not been confirmed.
- 9 There is not enough evidence about where the updated Contour will eventually lie to support any residential zoning over the land which is identified for deferred zoning in PC71.
- 10 Until the expert panel review is completed and the final updated contours are incorporated into the planning framework, the current Air Noise Contours remain those that are shown on Map A in the CRPS. As a responsible airport operator, CIAL cannot support a proposal which would potentially enable (or set an expectation for) brand new development of sensitive activities in an inappropriate location where future residents who purchase a home could be subject to undesirable amenity levels due to aircraft noise.

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

- 11 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 (*the Airport* or *CIA*).
  - 12 CIAL owns the Airport terminal, airfields, and surrounding land totalling approximately 859 hectares. 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.
  - 13 Importantly, the Airport has a significant advantage over other airports in New Zealand, and in the southern hemisphere. CIA operates without a curfew and without restrictions as to the types of 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, Antarctic operations, and aircraft requiring maintenance. This is integral to the future economic and social wellbeing of people and the communities of greater Christchurch and the South Island.
- Significance of the Airport to the local and regional economy**
- 14 The activities at CIA make a significant contribution to the social and economic wellbeing of Christchurch, Canterbury, the South Island and New Zealand. The Airport is a multi-generational infrastructure asset which all South-Islanders rely on for social and economic connectivity.

- 15 Christchurch International 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 the rest of New Zealand, Australia, Asia and the Pacific.
- 16 Just under 7 million travelling passengers and their associated meeters and greeters pass through the Airport. Combined Airport activities see between 25,000 and 30,000 people visiting the Airport every day. With the transportation of high value goods representing an increasingly vital aspect of the local and national economies, the Airport also plays a crucial role nationally as a freight hub for the South Island.
- 17 Airports have a strong multiplier effect on the economies they serve. Independent estimates indicate that for every \$1 Christchurch Airport earns, the wider South Island economy earns \$50. The Airport's contribution to economic wellbeing is expected to grow to nearly \$4 billion by 2031. In year ended March 2020 the Airport contributed \$3.02 billion to the GDP of the Canterbury region.
- 18 Ministry for Business, Innovation and Employment research reports that one international airline passenger into Christchurch generates 12.3 commercial bed nights across New Zealand and 9.9 commercial bed nights into the South Island. In 2021 the Airport was assessed as facilitating over \$1 billion in tourism spend, which supports 9,000 jobs.
- 19 Airport operations provide directly for 200 jobs while the Airport campus accounts for over 7,000 full time equivalent employees. It has recently been estimated that 1 in 10 jobs in Canterbury relies on the Airport, which means that CIA supports over 28,500 jobs within the regional community.
- 20 While we are currently experiencing unusual and unprecedented changes in these patterns due to the global COVID-19 pandemic, all projections indicate strongly that pre-COVID levels of activity will return.
- 21 The Airport and the associated infrastructure is a significant physical and economic resource which must continue to provide for the people and communities of Christchurch, Canterbury, the South Island and the whole of New Zealand.

## **AIRCRAFT NOISE AND THE AIR NOISE CONTOUR**

### **Aircraft noise at the PC71 Site**

- 22 Although the Airport is physically located within Christchurch City, planes landing and taking off at the Airport using the main runway

fly over Selwyn District. In fact, the PC71 site is directly under current and future flight paths.

- 23 A portion of the PC71 land is located within the current 50dB Ldn Air Noise Contour. CIAL's acoustic consultants have consistently advised that the 50dB Ldn Air Noise Contour is the limit within which the noise environment is not desirable for residential activities, and where new residential activity should be avoided.

#### **Noise sensitive activities within the 50dB Ldn Air Noise Contour**

- 24 Airport operations create unavoidable noise that can negatively impact on the amenity and comfort of people living close to runways and under flight paths. For this reason, the Canterbury Regional Policy Statement requires that noise sensitive activities are avoided within the 50dB Ldan Air Noise Contour.<sup>1</sup>

- 25 Allowing new residential areas to be established on land that is subject to this noise environment will expose a large number of additional people to aircraft noise effects which may then impact on their amenity. This is avoidable in the Selwyn district as there are many other places for this kind of residential development to go.

#### **Reverse sensitivity**

- 26 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 proximity to airports (and their associated flight paths) and large groups of new residents move into their homes and find that they are adversely affected by aircraft noise.
- 27 For Christchurch Airport in particular these risks are significant as the ability to continue to operate 24/7 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. Christchurch International Airport is a "slot taker" – we have to be available to accept aircraft (particularly those flying to and from international destinations) when it fits in with other global connections. As the majority of freight still arrives in the hold of passenger aircraft, without those key international connections, access to freight for import and export purposes is also put at risk.

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<sup>1</sup> Unless they are within an existing residentially zones urban area, residential greenfield area in Kaiapoi, or residential greenfield area identified in Map A of the RPS.

- 28 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 Noise Contour.

**Importance of rural zoning and avoidance of new sensitive activities under 50dB Ldn Air Noise Contour**

- 29 I spend a lot of time dealing with proposals for further residential intensification of sensitive activities or new noise sensitive activities within the 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 can have serious effects on operations.
- 30 The Noise Contour in Selwyn extends over land that is rurally zoned. This is appropriate as it is a zone that allows only a low density of housing to establish, minimising the number of people who live under the 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.
- 31 Residential zones, by definition, actively enable and attract a wide range of sensitive activities which are incompatible with the noise environment within the 50dB Ldn Air Noise Contour. We cannot do much about existing residentially zoned areas, but PC71 proposes a brand new residential zoning for land that is currently rural. This development potential is better realised in locations that will provide residents with a quiet noise environment, consistent with residents' expectations when they make the substantial investment of buying a house.

**AIR NOISE CONTOUR REMODELLING**

- 32 PC71 seeks a deferred residential zoning for a portion of the land which lies within the current 50dB Ldn Air Noise Contour, on the assumption that the remodelling of the Contour will mean that the land is no longer subject to 50dB Ldn of aircraft noise. I do not know where this assumption came from. The updated Noise Contour has not been confirmed.
- 33 The process for remodelling the Air Noise Contours has commenced, but is only party-way through.
- 33.1 Policy 6.3.11(3) in the CRPS requires certain processes with respect to remodelling the Air Noise Contours – it says that prior to review of Chapter 6 of the CRPS Environment Canterbury (*ECan*) may request CIAL to undertake a

remodelling of the Noise Contours. CIAL began this work in 2018 in anticipation of a formal request from ECan (because that marked 10 years since the operative contours were modelled).

- 33.2 The remodelling work was partially completed when the covid-19 pandemic occurred in March 2020. Progress was temporarily halted but recommenced in 2021. CIAL received that formal request from ECan in September 2021.
  - 33.3 CIAL completed the modelling work required as the first stage in this process on 1 November 2021 and provided the draft updated contours to ECan for peer review by an independent expert panel. This work is publicly available on CIAL's website. I have attached the draft updated contours that were submitted to ECan for the Panel's information as Appendix A.
  - 33.4 At the time of writing this evidence, the independent expert panel is yet to be appointed. Once in place, this group of experts will check and peer review the assumptions, inputs and modelling work, and produce a final set of Contours which can then inform planning decisions. Until that process is complete it is not possible to confidently say which land will or will not be covered by the updated Contours.
- 34 I understand that Gould Developments Ltd and Five Stars Ltd have suggested that a deferred zoning for the land under the current Contour is appropriate because CIAL's draft updated contours indicate that, although the contours are not in fact getting smaller, there may be a change which means that the contour no longer covers the specific piece of land at issue here. This should be treated with caution for several reasons:
- 34.1 The contours which CIAL's experts have modelled are subject to testing of all of their inputs and assumptions and are draft. They may change, and small changes to various assumptions can result in movement of the contours in terms of any specific piece of land.
  - 34.2 The input which drives the shape of the contours the most is flight paths. Slight changes in flight path assumptions can move the contours, particularly at the scale of particular parcels of land. The flight path inputs and assumptions are yet to be reviewed and need to be tested through the independent panel process.
  - 34.3 Even if the independent expert panel confirms contours which have a different extent or shape to those which CIAL's experts have modelled, we cannot predict what that shape and extent will be.

- (a) It might be the case that the Contour stays over some of the PC71 land but covers a different area both to the current 50dB Ldn Contour and the area which has been identified by the applicant for deferred zoning (which assumes the Contour will disappear entirely). The maps and application of rules would then be wrong and PC71 could inadvertently have allowed residential zoning with no limits or deferred status on land that is covered by updated Contours.
  - (b) It might also be the case that some of the land which is covered by a deferred residential zoning or which is zoned residential with a non-complying activity status for residential activity will not in fact end up being available for development.
- 35 After the independent expert panel has confirmed the updated Contours, they will be incorporated into the planning framework through the Spatial Plan and Regional Policy Statement review. I understand that these processes are still several years away from completion.
- 36 Unfortunately the bottom line is that there is not enough evidence about where the updated Contour will lie to support any residential zoning over the land which is identified for deferred zoning in PC71. This is a sequencing problem.
- 37 Until the expert panel review is completed and the final updated contours are incorporated into the planning framework the current Air Noise Contours remain those that are shown on Map A in the CRPS. As a responsible airport operator, CIAL cannot agree to a proposal which would potentially enable brand new development of sensitive activities in an inappropriate location where future residents who purchase a home could be subject to undesirable amenity levels due to aircraft noise.

#### **RESPONSE TO MATTERS RAISED IN APPLICANT EVIDENCE**

- 38 I have read and considered the evidence provided by Fiona Aston. I have some comments I would like to make to Ms Aston's evidence.
- 39 As a preliminary matter, I note that Ms Aston makes assertions throughout her evidence that it is "*inevitable*" that in the near future the Site will no longer be affected by the 50dB Ldn Air Noise Contour. As I have explained above, the contours which have been provided to ECan for review are draft only, and there is a full peer review process to go through in which all the inputs and assumptions will be tested. It is certainly not "*inevitable*" that the contour will shift off the Site.

### **Timeline of contour remodelling**

- 40 At paragraphs [60] to [62] Ms Aston explains her understanding of the noise remodelling process.
- 41 In particular, Ms Aston states that a review was scheduled by 2018, and that CIAL engaged a team of experts on noise modelling and aviation in 2018. She goes on to say that the majority of the technical analysis was completed in late 2019 and was to be provided to Environment Canterbury in 2020. I have explained the process and timeline above. As is clear in the documentation, there was a substantial amount of technical analysis which occurred in 2021 when the remodelling project resumed. That work was only partially complete when it was interrupted by the covid-19 pandemic.
- 42 Ms Aston also refers to modelling CIA undertook in 2017-2018<sup>2</sup> on Performance Based Navigation (PBN)<sup>3</sup> flight paths that she understood to illustrate “a change in the 50 Ldn contour such that it did not affect the Site”.<sup>4</sup>
- 42.1 It appears that Ms Aston misunderstood the associated reports on the PBN flight path trials. The 2017-2018 Mid-RNP Trial Assessment Contours were modelled by Marshall Day Acoustics to demonstrate the difference that the PBN arrival flight tracks would make compared to the aircraft noise (for existing air traffic) when aircraft run on straight tracks. That contour was not a new version of the 50dB Ldn Air Noise Contour and it was never presented as such. It was just an isolated picture of the noise profile of the levels of air traffic which was flying at that time (in 2017/18) using the altered departure flight paths, while the trial was running.
- 42.2 CIA uses noise monitoring to understand and quantify how noise is generated from airport operations. This enables it to make informed decisions as to how airport operations are to be managed. Noise monitoring is also used to establish how changes in operations may impact noise levels generated from operations. To this end, the Mid-RNP Trial Assessment was completed to understand compliance implications pursuant to section 5.1.1 of CIA’s Noise Management Plan.<sup>5</sup> The trial was used to assess whether there was potential for a

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<sup>2</sup> Ms Aston states that this modelling was undertaken in 2018-2019 which is incorrect. The map on page 4 of the meeting minutes confirms the modelling was completed December 2017-February 2018.

<sup>3</sup> This is satellite-based navigation, rather than visual navigation and can be used to direct air traffic flight tracks more precisely.

<sup>4</sup> Evidence of Fiona Aston dated 24 January 2022 at [61].

<sup>5</sup> Christchurch International Airport Limited “Noise Management Plan” (May 2009) <https://www.christchurchairport.co.nz/globalassets/about-us/sustainability/noise/2019-noise-management-plan.pdf>.

breach of the 65 dB Ldn Air compliance contour to occur. If any potential breach was identified CIAL would have then had to investigate what operational changes were required to avoid the breach.

- 42.3 There was never any suggestion that the Mid-RNP Trial Assessment contours could be used for planning purposes, or that they were a predictor of what updated Air Noise Contours would look like. There are many inputs and assumptions in the modelling which produces the final 50dB Ldn Air Noise Contour, not just flight tracks. All of those inputs influence the overall shape and size of the Air Noise Contour.
- 43 At paragraph 67 and throughout her evidence Ms Aston seems to imply that the sensitivity testing undertaking by CIAL's experts in the contour remodelling process provides certainty that in the near future the land will no longer be subject to the 50 dB Ldn Air Noise Contour. As I have explained earlier, the contours which CIAL's experts have modelling are subject to testing of all of their inputs and assumptions and are draft. The flight inputs and assumptions are yet to be reviewed and need to be tested through the independent panel process. Until that process is complete it is not possible to confidently say which land will or will not be covered by the updated Contours. Finally, Ms Aston refers to meeting minutes she took during a meeting with my colleague Rhys Boswell in February 2020, where flight paths and the remodelling process were discussed. Ms Aston ignores an important caveat to the discussion: that the revised contours were yet to be confirmed, and are subject to change.<sup>6</sup> At no point in that meeting did Mr Boswell represent to Ms Aston that the contours would come away from the site, nor that CIAL would support any residential plan change in this area.
- 44 I also note that it was, and is, general practice for meetings such as that to occur on a confidential, off the record, without prejudice basis. I have discussed Ms Aston's notes with Mr Boswell and understand that the without prejudice nature of that meeting was communicated to her and agreed at the outset.
- 45 CIAL often gets approached by developers wishing to test out ideas or get an off-the-record understanding of CIAL's likely position on a proposal before they lodge an application. The meeting which Ms Aston records was one such meeting. In the spirit of cooperation, and to avoid potential future disputes, CIAL takes the approach that it is preferable to be frank with potential applicants about its position in those early stages. But CIAL's position is provided on a without prejudice basis. CIAL usually does not have full information about a proposal at that early stage, and any formal Council process has not commenced. What is more, applicants may decide to alter their approach between approaching CIAL or other potentially interested parties and lodgement. CIAL approaches any such discussions on the understanding that a potential applicant may not have formed their position fully, and CIAL treats those conversations as confidential and without prejudice.

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<sup>6</sup> Appendix 19: Meeting minutes at paragraph [6].

- 46 I am concerned to see these meeting notes now being used as evidence.

**CONCLUSION**

- 47 Overall, CIAL remains strongly opposed to the proposed deferred residential zoning proposed for the land within the Contours. CIAL asks the Panel to decline this portion of the plan change.

Dated: 31 January 2022






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Felicity Jane Blackmore

**APPENDIX A**



# 2021 CIAL Expert update of the Operative Plan Noise Contours, for review by Ecan's Independent Expert Panel.



Key	
50 dB L <sub>dn</sub> Air Noise Contour Annual Average Modelling Methodology within the Selwyn District	
50 dB L <sub>dn</sub> Air Noise Contour Outer Envelope Modelling Methodology within the Selwyn District	
NZ Primary Land Parcels (LINZ)	

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