

BEFORE THE Hearing Panel on the Proposed Waimakariri District Plan

IN THE MATTER OF The Resource Management Act 1991

AND

**IN THE MATTER OF Of the hearing of submissions and further
submissions on the Proposed Waimakariri
District Plan – Stream 12: Rezoning of land**

STATEMENT OF EVIDENCE OF ROB LACHLAN HAY

1.0 INTRODUCTION

- 1.1 My full name is Rob Lachlan Hay.
- 1.2 I am a Director and Associate in the international acoustical consulting firm of Marshall Day Acoustics (MDA). I hold Bachelor and Master of Science degrees from the University of Canterbury, majoring in Chemistry.
- 1.3 I have worked in the field of acoustics for over 20 years. I joined MDA in 2006, and I have been involved in many significant building and environmental acoustics projects throughout New Zealand. Of significance to the current application, I was involved with the Designation of Rangiora Airfield and associated changes to the Operative District Plan in 2020. I was the primary local contact for work undertaken by Marshall Day Acoustics on behalf of CIAL for a number of years and have undertaken or lead work on small airports throughout the South Island.
- 1.4 I have personal experience in airfield management and aviation as a glider pilot and former Instructor and Chief Flying Instructor of the Canterbury Gliding Club; and as a member of the Omarama Soaring Centre Executive for many years. While I am familiar with many aspects of powered flight (both GA and microlight aircraft), I am not myself qualified to fly such aircraft.
- 1.5 I have not been a member of any aviation club or committee for several years. I do not own and do not hold any financial interest in any aircraft, airfield, or related activity.
- 1.6 My evidence is given in relation to the proposal by Daniel Smith.
- 1.7 My involvement in the current project has been to liaise with the Waimakariri District Council (WDC) staff who administer Rangiora Airfield and Planz Consultants to gather sufficient information about the proposal to form a view as to whether the proposal is consistent with the need to enable airport purposes and activities to be carried out in a socially sustainable manner while also providing adequate protection to nearby residential activities.

2.0 SCOPE OF EVIDENCE

- 2.1 My evidence will specifically address:
- Intensification of noise sensitive activities in close proximity to airports;
 - The proposed development areas and activities;
 - The proposed rule framework; and
 - Proposed modifications to the noise contours.
- 2.2 In addressing the noise contours I rely on the expertise of my Auckland based colleague **Mr Peakall** who undertook modelling of the airfield contours for both the 2020 hearings and has revised these contours to reflect the proposed lengthening of the runways which will result in minor changes, especially around runway thresholds.

3.0 SUMMARY OF FINDINGS

- 3.1 The development of Activities Sensitive to Aircraft Noise (ASAN) in close proximity to Airfields frequently results in reverse sensitivity effects for the Airfield. However, there are on occasion legitimate reasons for permitted ASAN to develop close to an Airfield where the ASAN enables activity consistent with airport purposes such as live-work and fly home (e.g. Pukaki, Omarama, North Shore).
- 3.2 An appropriate framework is required to ensure that the safety and amenity of occupants of ASANs are protected, while also ensuring that the Airfield is protected against the negative longer-term potential for reverse sensitivity.
- 3.3 I consider that the proposed objectives, policies, and rules of the proposal are appropriate when considered in conjunction with the draft Outline Development Plan (ODP) proposed; and I support their adoption.
- 3.4 I would also be supportive of any practicable rule, instrument, or process that would more tightly tie the occupation of any ASAN to airport purposes. The purpose of this is to prevent the potential longer-term drift of occupancy of an ASAN from airport/aviation related to general residential use.
- 3.5 I am also in favour of the adoption of the proposed airport noise contours through a subsequent process. These contours arise as a consequence of the extension of the runways that are a part of the proposal. If the proposal is adopted, the existing noise contours should be amended to ensure that the proposed rule framework is correctly applied.

4.0 INTENSIFICATION OF NOISE SENSITIVE LAND USES NEAR AIRPORTS IS NOT DESIRABLE

- 4.1 Airports generate noise as a function of their operation. This noise results in a mixed community reaction with a moderate percentage of the population likely to become seriously annoyed above 55 dB L_{dn} .
- 4.2 Experience both in New Zealand and overseas has shown that when residential or other noise sensitive activities are allowed to establish or intensify around airfields and airports, this frequently leads to activity on the airfield being severely curtailed or even closing of the airfield.
- 4.3 This has resulted in the development of a range of responses designed to keep Activities Sensitive to Aircraft Noise (ASAN) separated from airfields to the benefit of both. Such means include:
- Land use zoning that prohibits or restricts ASANs;
 - Sound insulation rules designed to ensure that internal noise levels within ASANs are acceptable; and
 - Setbacks from airfield activities, including prohibition of ASANs within certain areas.
- 4.4 In addition to these, further restrictions such as no-complaints covenants, or membership, activity related use of the ASAN have been used in some cases.
- 4.5 My experience, and that of others in MDA, is that the combination of zoning, setbacks, and sound insulation rules is generally effective, both for ASANs that are off-airfield, and for ASAN associated with the airfield.

- 4.6 Similarly, no-complaint covenants registered on property titles have the benefit that they appear in LIM searches, which act as a signal to prospective buyers that aircraft noise may be a feature of the environment and further pre-purchase due diligence may be required. No-complaints covenants do not in themselves mitigate noise effects or reduce annoyance.
- 4.7 However, in some cases there is demand from within the aviation community and it's support industry to locate ASANs within areas where these are normally discouraged, both for lifestyle reasons (fly to home), and commercial reasons (live-work).
- 4.8 This has been the case at several airfields, with other examples being Pukaki and Omarama in the South Island, or North Shore in the North Island, and is now proposed at Rangiora.

5.0 THE PROPOSAL

- 5.1 The proposal is to allow land bordering and including Rangiora Airfield to be rezoned to permit amongst things ASAN's including residential development. The residential component would be either as large lots (which may include a detached hanger) and shared private taxiways, or as smaller residential units associated with hangers and workshops that are primarily commercial in nature. All residential components would be subject to a no complaints covenant.
- 5.2 I have reviewed the proposed Outline Development Plan (ODP) that shows the location and extent of these areas.
- 5.3 I have also reviewed the proposed Special Purpose Zone – Rangiora Airfield objectives, policies, and rules– so far as they apply to noise.
- 5.4 I consider that the proposed ASAN development areas are appropriately located. All ASANs are outside the 65 dB L_{dn} contours (operative and proposed). The purely residential large lots are sufficiently separated from the commercial areas of the airfield that the more intensive noise effects of the airfield would be sufficiently mitigated by distance and screening from structures. ASANs associated with commercial activities such as workshops, flight training, hangars etc, will likely receive more frequent bursts of noisy activity, but this will be in keeping with the expectations of all parties likely to be present.
- 5.5 I consider that those objectives and policies that address noise are appropriate.

6.0 THE PROPOSED RULES

- 6.1 The proposed rule framework will prevent the development of ASANs within the operative and proposed 65 dB L_{dn} noise contours. I regard this as appropriate, and this is not a change from the existing situation.
- 6.2 The rule framework will permit developments of ASANs between the 55 dB L_{dn} and 65 dB L_{dn} noise contours (operative and proposed), subject to several controls.
- 6.3 All dwellings will be subject to the existing sound insulation rules in the Operative and Proposed District Plans. These rules remain appropriate and do not need to be changed.
- 6.4 Other rules address matters such as setbacks from taxiways, the scale and intensity of ASAN development, the location in which development can occur, and matters of discretion when a rule will be breached, and resource consent is required. Some of these rules address both noise and safety or other matters (such as the setback from taxiways), which is efficient.
- 6.5 I am broadly supportive of the proposed rule framework.

- 6.6 As a general view, I am not in favour of intensive development of ASANs in close association with airfields for reasons I outlined above. However, I accept that there is both demand and legitimate purpose to allowing this to some extent. The current proposal will allow the creation of approximately 20 residential ASAN within the large lot area, and a further 30 within the commercial area (inclusive of both residential and visitor activity ASANs).
- 6.7 While this is approximately three times the number of ASAN that could currently be anticipated under the Rural Lifestyle zoning, I consider that this is manageable, especially if this can be tightly tied to an airfield purpose which any development in the Rural Lifestyle area would not be.
- 6.8 I am aware of a range of options for achieving this. These include:
- Membership of an affiliated Club or organization;
 - A civil contract or covenant; and
 - Access to the sites via restricted access airport land.
- 6.9 I am aware of instances where the occupant of an ASAN associated with an airfield or other noisy activity has either ceased being involved, or the ASAN has been inherited or sold to people not involved with the activity. While discord does not always arise, I have witnessed complaints about the primary activity arise in these circumstances.
- 6.10 Ideally such sources of social pressure and complaints should be avoided or mitigated to reduce the potential reverse sensitivity effects on Rangiora Airfield. I do not prefer a particular solution, and I accept that the Hearing Panel may feel that no additional controls are required.

7.0 THE PROPOSED NOISE CONTOURS

- 7.1 I have not been involved in the modelling of the proposed noise contours.
- 7.2 These contours have been prepared by my colleague Mr Peakall, who also undertook modelling of the operative noise contours for Rangiora Airfield.
- 7.3 Having discussed the proposed contours with Mr Peakall, I understand that the changes arise because of the lengthening of the runways. Changes are relatively minor and are largely confined to the proximity of the runway thresholds.
- 7.4 I support adoption of the proposed noise contours as an integral consequence of the proposal.

Rob Hay
12 March 2024