

Before the Hearing Commissioner  
appointed by Selwyn District Council

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Under the Resource Management Act 1991

In the matter of a request by Four Stars Development Limited and Gould Developments Ltd to rezone approximately 53 hectares of Rural Inner Plains Zone to Living Z and Living Z Deferred at Levi, Lincoln Rolleston Roads and Nobeline Drive, East Rolleston (**Plan Change 71**)

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**Statement of evidence of Rob Lachlan Hay**

31 January 2022

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**Submitter's solicitor:**

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**anderson  
lloyd.**

- 1 My name is Rob Lachlan Hay. I am an Associate, and currently a Director of, the international acoustical consulting firm, Marshall Day Acoustics (**Marshall Day**).
- 2 I hold Bachelor of Science and Masters of Science degrees from the University of Canterbury.
- 3 I have worked in the field of acoustics for over 16 years. I joined Marshall Day in 2006 and have been involved in a wide range of environmental noise assessment projects throughout New Zealand, including for retailing, residential, transportation and manufacturing activities.
- 4 My previous work experience relevant to this matter includes the prediction, assessment, and monitoring of noise from a wide range of big box retail, supermarket, and residential subdivision developments. Relevant to the current matter, I have worked on numerous projects where the interface between a supermarket and residential activities has been the focus of discussion, particularly back of house and logistics activities. These have been both brown and green field developments; and in some cases the supermarket activity was pre-existing and in others the residential activity was pre-existing.
- 5 In preparing this statement of evidence I have considered the following documents:
  - (a) the AEE accompanying the Application;
  - (b) section 42A report.
- 6 The Section 42A report only considers noise as it relates to the CIAL noise outer Control boundary. As this matter does not affect the PAK'nSAVE site and my company has a specialist team that assists CIAL in such matters, I do not address the S42A report further.
- 7 I have previously prepared an assessment of noise effects for the Rolleston PAK'nSAVE resource consent application.

#### **Code of Conduct for Expert Witnesses**

- 8 While this is not a hearing before the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2014 and that I have complied with it when preparing my evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

## **Scope of Evidence**

- 9 I have prepared evidence in relation to:
- (a) the potential for future reverse sensitivity effects or incompatibility between activities at the boundary between the proposed PAK'nSAVE site and PC71 ODP5;
  - (b) possible noise mitigation measures that might be applied to reduce the potential for unacceptable adverse effects.

## **The Proposed Residential Activities In The PC71 Application Will Not Be Compatible With The PAK'nSAVE Site**

- 10 The PC71 application did not consider the future presence of a PAK'nSAVE, and therefore does not address the potential for likely future incompatibility of supermarket and residential activities due to noise effects, particularly during the night-time.
- 11 No potential noise mitigation measures have been considered or offered, including in response to Foodstuffs' submission despite measures being necessary to ensure appropriate integration of activities from a noise perspective.

## **The PAK'nSAVE Proposal Has been Designed To Comply With The Existing Environment As Far As Practicable**

- 12 I undertook the preparation of the assessment of noise effects arising from the operation of the proposed PAK'nSAVE. This report has been lodged with Council as part of the resource consent application lodged by Foodstuffs.
- 13 My assessment took several matters into account including:
- (a) the operative (OSDP) and proposed (PSDP) Selwyn District Plan noise rules applying to the application site and surrounds;
  - (b) chapter 15 of the National Planning Standards 2019;
  - (c) guidance on noise effects and appropriate noise standards from sources such as the World Health Organization and NZS 6802:2008;
  - (d) the existing environment, including current land use, zoning, and arterial roads.
- 14 Other than brief and acceptable exceedances of the night-time noise limits at existing residential properties opposite site access points used by delivery trucks at night, the PAK'nSAVE application has been designed to comply with the permitted noise limits that are anticipated in the PSDP.

- 15 Compliance along the eastern boundary of the PAK'nSAVE is based on the existing rural land use and zoning, which requires compliance with the applicable noise standard at the notional boundary of the existing dwelling on site.

**PC71 As Currently Proposed Will Result In Residential Properties Being Exposed To Noise Levels Exceeding The Permitted Noise Standard**

- 16 Should this land be rezoned to residential LZ and the PAK'nSAVE be constructed, the noise compliance location would move to the PAK'NSAVE site boundary.
- 17 The movement and operation of a heavy goods vehicle down the access route, subsequent manoeuvring in the loading yard and unloading of goods will generate between 42 and 43 dB  $L_{Aeq (15 \text{ min})}$  up to 15 metres from the PAK'nSAVE boundary.
- 18 This assumes the presence of a 2 metre high noise control fence on the common boundary (similar to that proposed in the Foodstuffs consent application) and only one goods vehicle movement within the 15 minute period.
- 19 Given the proposed delivery schedule, there is the potential at times for the arrival of one vehicle to overlap with the departure of another within a 15 minute period. This would increase the predicted noise level by 3 dB (up to 46 dB  $L_{Aeq (15 \text{ min})}$ ), and 43 dB  $L_{Aeq (15 \text{ min})}$  would not be achieved until 45-50 metres from the PAK'nSAVE boundary.

**The Risk Of Noise Complaints Will Be Elevated**

- 20 While I do not consider brief periods of noise at these levels at night unreasonable, for a green field development, such as this, the ideal solution is to design community noise exposure to be as low as practicable, as Foodstuffs had sought to accomplish with their selection of this site, layout, and design.
- 21 The current PAK'nSAVE design detailed in the Foodstuffs consent application arose from multidisciplinary technical input, including consideration of noise effects on existing LZ residential areas, to minimise the potential for noise effects on neighbours and resulting reverse sensitivity effects on Foodstuffs.
- 22 While adverse effects on neighbours is low at noise levels of around 46 dB  $L_{Aeq (15 \text{ min})}$  – especially given the brevity of the occurrence – it has been my experience that at and above these noise levels there is likely to be a greater risk of noise complaints. This is due to the potential for sleep to be interrupted.
- 23 The more residents that are exposed to these activity noise levels the greater the risk of complaints. Complaints, whether directly to Foodstuffs or to Council, increase the likelihood of pressure on Foodstuffs to curtail necessary activities or otherwise mitigate noise, and may even result in formal investigation being launched by Council.

### **PC71 Necessitates Additional Noise Mitigation**

- 24 In my view, being a greenfield development and PAK'nSAVE having been already optimised to reduce effects on existing and anticipated residential activity, the PC71 ODP 5 area should be designed to ensure residential properties receive no more than 40 dB  $L_{Aeq}$  (15 min).
- 25 This may be accomplished by means of a 2 metre high noise control fence on the common boundary (which is similar to the fence that already forms part of the Foodstuffs consent application) and a 45 metre no build set back within the PC71 site to create the required degree of separation.
- 26 The extent of the setback may be traded off against a higher noise control fence, however some no-build or greenway/open space setback will still be required to achieve an acceptable noise level consistent with best practice.
- 27 The degree of noise mitigation (fence height and setback) may be able to be reduced further, although not eliminated, by implementing a 45 dB  $L_{Aeq}$  (15 min) at the common boundary. While this would not reduce the noise effect on the residential development, it would at least clearly signal the reduced level of anticipated night-time noise amenity that can be expected.
- 28 This would at least reduce the potential for reverse sensitivity effects or incompatibility with the PAK'nSAVE.

### **Conclusions**

- 29 PC71 does not consider the potential for adverse noise effects or future potential reverse sensitivity arising from the common boundary shared with the site of the proposed PAK'nSAVE.
- 30 In my view there is potential for PAK'nSAVE to be adversely affected by complaints arising from necessary night-time goods vehicle movements.
- 31 The adverse noise effects on the proposed PC71 residential activity can be mitigated by a combination of a noise control barrier on the common boundary and a set back comprised of a greenway and/or no build area within the PC71 site.
- 32 An elevated night-time noise limit of 45 dB  $L_{Aeq}$  (15 min) on this boundary would be appropriate where the combination of noise barrier and setback cannot reduce the noise level received in residential lots to below 40 dB  $L_{Aeq}$  (15 min).

**Rob Lachlan Hay**

Dated this 31<sup>st</sup> day of January 2022