

**BEFORE THE NEW PLYMOUTH DISTRICT COUNCIL
INDEPENDENT HEARING COMMISSIONERS**

IN THE MATTER the Resource Management Act

AND

IN THE MATTER of a request for Private Plan Change NPDC PLC18/00048
by Oakura Farm Park Limited to rezone land at Oakura
within the New Plymouth District

STATEMENT OF EVIDENCE OF SHAUN JAMES KING

LACHLAN MULDOWNEY
BARRISTER

P +64 7 834 4336 **M** +64 21 471 490

Office Panama House, 15 Grantham Street, Hamilton

Postal PO Box 9169, Waikato Mail Centre, Hamilton 3240

www.lachlanmuldowney.co.nz

Instructing Solicitor: Ellice Tanner Hart

INTRODUCTION

1. My full name is Shaun James King.
2. I am an acoustic consultant at Marshall Day Acoustics (MDA), a national acoustic consulting firm.
3. I have a Bachelor of Mechanical Engineering from the University of Auckland. I am a full member of the Acoustical Society of New Zealand and a member of Engineering New Zealand. I have 10 years of experience as an acoustic engineer. I have been involved in resource consent applications for a range of projects, including roading, shared paths, residential subdivisions, industrial sites and commercial buildings.
4. I am presenting evidence today as my colleague, Damian Ellerton, is currently out of the country. I have read his report dated 26 March 2017 and discussed the project with him.

CODE OF CONDUCT FOR EXPERT WITNESSES

5. I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with it and I agree to comply with it. This evidence is within my area of expertise, except where I state that I am relying on another person, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

SCOPE OF EVIDENCE

6. My evidence will cover:
 - (a) Potential reverse sensitivity of new houses within 80m of State Highway 45.
 - (b) Submitter concerns regarding noise.
 - (c) Recommendation of noise related conditions of consent should Plan Change be granted.
7. I confirm that I have read and are familiar with the submissions, officers' reports and any proposed consent conditions relating to noise.
8. I have carried out a site visit.

EXECUTIVE SUMMARY

9. My evidence concludes that:
 - (a) The proposed development can be designed to ensure there is not a reverse sensitivity issue with regard to road traffic on State Highway 45.
 - (b) Submitter concerns regarding noise are general in nature and do not raise any unforeseen issues.
 - (c) Construction noise is appropriately controlled by the District Plan provisions.

ACOUSTIC REQUIREMENTS FOR HOUSES ADJACENT TO STATE HIGHWAY

10. The NZTA document *“Guidelines to the management of effects on noise sensitive land use near to the state highway network”* provides in section 8 of that document clear guidance with regard to rules that should be implemented to mitigate reverse sensitivity [noise] effects.
11. The NZTA requirements in essence seek to ensure habitable spaces (bedrooms, living rooms) have adequate sound insulation within the house structure to ensure intrusive noise from State Highway is controlled to an appropriate level.
12. In addition to NZTA requirements, myself and my colleague Damian Ellerton, recommend the noise level in outdoor amenity areas around houses should ideally not exceed 55dB LAeq.

PREDICTED SITE NOISE

13. The rezoning of the application site to predominately Residential means the noise emission is controlled by the Plan noise limits. As noted in response to submissions, this control did not previously exist and should be seen as a positive outcome.
14. The noise of vehicles on the roading network is perhaps the only change in noise that may be anticipated. Generally, the presence of vehicles is anticipated on the roading network and is not subject to compliance with Plan noise limits as none exist.
15. Nonetheless, I have considered the potential change in noise level that may be anticipated on Wairau Rd. I have considered several scenarios as the proposed rezoning is anticipated to occur over a number of years which will coincide with other developments in the vicinity.

16. In my opinion, the rate of development may range from 10-20 houses per year which would mean that based on 399 Lots could take 20-40 years to reach full capacity.
17. If house development occurred at the rate of 20 houses per year I calculate it would take 10 years for the potential road traffic on Wairau Rd to double. Doubling the road traffic is noteworthy because it may lead to a +3dB change in road noise. A 3dB change in road traffic noise is not considered significant.

SUBMISSIONS

18. A number of submitters have raised noise in a general sense with regard to a perceived change in amenity as the number of houses, and as a consequence the number of people and cars, in Oakura increases. Potential construction noise from house building is also referred to in submissions.
19. In my opinion, the change of noise from additional houses, and therefore residents, is unfounded. With regard to the current landuse, the existing rural land is not obliged to comply with any noise limits with the Operative District Plan (Plan). Rezoning land to Residential, Business and Outdoor will mean the Plan noise limits will need to be complied with.
20. Therefore, rezoning the application site will introduce control of noise that has not previously been in place.
21. Traffic from new residential use will not generate noise that is out of character in the area. The increase in potential traffic on Wairau Rd from development of 10-20 new houses year on year will not create any significant change in noise.

22. Construction noise is controlled by the Plan with specific noise limits that apply to those activities. These noise limits are no different to what applies to any new construction activity within the District.

OFFICER'S REPORT

23. I have read the Officers S.42A report dated 31 May 2019. I agree with the conclusion in Para 13.80 that noise can be effectively managed through the implementation of various methods.
24. One of the issues raised that crosses disciplines is the requirement for, and the height of any noise attenuating bund.
25. I note in the S.42A report paragraph 13.72 (and earlier in 13.65 last bullet point) that a noise attenuation bund of 2-4m in height is noted. The reference to a 4m high bund has then led onto landscape and visual issues that Mr Bain will address in his evidence.
26. The MDA report dated 26 March 2017 the only bund heights mentioned are 2 and 3m high. The subsequent conclusion drawn on page 6 of that report is a 2m high barrier represents good "bang for buck" noise attenuation. It is also noted that there is only a modest difference between acoustic performance of a 3m high bund compared to a 2m high bund.
27. Construction with a 2m high bund, relative to grade elevation of SH45 will provide adequate attenuation from road traffic noise and the implications for house construction materials is not considered particularly onerous.
28. I can confirm there is not a recommendation to construct a 4m high bund parallel with SH45 for noise attenuation reasons. If the conclusion reached

in paragraph 15.4(c), as reason not to support the application, is because of the 4m height then this may be a moot point because the 4m height was neither recommend to, nor sought by the applicant.

CONCLUSION

29. In conclusion, I confirm that noise from the proposed subdivision construction noise can comply with the Plan requirements.
30. I can also confirm that traffic generation from additional cars will not give rise to a significant change in noise particularly given the anticipated rate at which new traffic would be introduced to the roading network.
31. A 2m high noise bund will provide adequate attenuation of SH45 traffic noise. Furthermore, the house construction requirements to ensure compliance with the NZTA requirements can be readily achieved.

18 June 2019

Shaun King