

Before the Hearing Committee at Central Hawke's Bay District Council

Under: the Resource Management Act 1991

In the matter of: Proposed Central Hawke's Bay District Plan

and: **Waka Kotahi NZ Transport Agency**
Submitter #78

STATEMENT OF EVIDENCE OF ANDREW SOWERSBY



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1.0 QUALIFICATIONS AND EXPERIENCE

1.1 My full name is Andrew Sowersby and I am a Principal Planner at WSP. I have a Bachelor of Resource and Environmental Planning from Massey University, and I am a full member of New Zealand Planning Institute (NZPI). I have 19 years of professional experience in consenting and policy.

2.0 CODE OF CONDUCT

2.1 I have read the Environment Court's Code of Conduct for Expert Witnesses (2014) and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my areas of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed. Where I have relied on data, information, facts or assumptions on an area beyond my expertise, I have identified the source of that information.

3.0 WAKA KOTAHI's STATUTORY ROLE & FUNCTIONS

3.1 The Waka Kotahi is interested in the Proposed Central Hawke's Bay District Plan (PDP) because it has implications on the ongoing operation and management of the state highway network. The PDP also has implications on road user's safety, performance and amenity.

4.0 WAKA KOTAHI's PDP SUBMISSION

4.1 Waka Kotahi's submission and further submissions associated with Hearing Stream 2 relates to Noise, and Urban Form and Development. The evidence in this statement relates to the Noise submissions only.

4.2 Waka Kotahi's submission seeks to retain noise provisions NOISE – 03, NOISE -04, NOISE P2, and NOISE S3 as included in the PDP.

- 4.3 The overall objective of the Waka Kotahi in these proceedings is to ensure that the PDP provisions, as they relate to noise from the State Highway, adequately provide for the health effects from road noise on building occupants within a noise sensitive activity.
- 4.4 Waka Kotahi supports planned development in appropriate areas and considers this should occur in a manner which does not compromise the effectiveness, efficiency, resilience and safety of the transport network. This includes ensuring that adequate provision is made to mitigate noise effects on new noise sensitive activities that adjoin the state highway.
- 4.5 The evidence below relates to the additional wording sought by Kainga Ora: 'where practicable' in Objective NOISE O3 (S129.130 Kāinga Ora); and 'where appropriate' in Objective NOISE O4 (S129.131 Kāinga Ora), and Policy NOISE P2 and Standard NOISE S3 relating to noise sensitive activities within 100m of State Highways.

5.0 OBJECTIVES NOISE 03 AND NOISE 04

- 5.1 The objectives NOISE 03 and NOISE 04 as included in the PDP are as follows:

NOISE-03 - Avoid, remedy or mitigate conflict and any reverse sensitivity effects arising for existing lawfully established activities as a result of new noise sensitive activities establishing in close proximity to them.

NOISE-04 - Where the locational, functional or operational needs are such that activities of importance to the community could not otherwise meet noise and vibration standards, enable these activities by allowing a whole or partial exemption from those noise standards.

- 5.2 Kainga Ora, in submissions FS23.177 and FS16.38 oppose Waka Kotahi's submissions to retain Objectives NOISE 03 and 04. Kainga Ora seeks to add the text '*where practicable*' at the end of Objective NOISE 03 to reflect that avoidance, remedying, and or mitigation may not in all cases eliminate all

reverse sensitivity effects which may arise. Kainga Ora seeks to add the text '*where appropriate*' at the end of Objective NOISE 04.

- 5.3 In my opinion adding the words '*where practicable*' at the end of NOISE 03 would divert much of the focus away from the intent of the objective which is to avoid, remedy or mitigate the conflict or reverse sensitivity effects, onto determining whether it is practicable, or not, to avoid, remedy or mitigate the conflict or reverse sensitivity effects. A '*practicable*' test is likely to be determining whether the activity can be put into practice successfully elsewhere, or whether mitigation can be done or put into practice successfully.
- 5.4 I also agree with the reporting planner in Section 4.3.14 of the s42A report that, '*where practicable* can be more properly assessed at the resource consent stage taking into account the particular facts of each situation'.
- 5.5 For similar reasons, I am also of the opinion that '*where appropriate*' should not be included at the end of Objective NOISE 04.

6.0 POLICY NOISE P2 and RULE NOISE S3

- 6.1 Policy NOISE P2 and Rule NOISE S4 as included in the PDP are as follows:

NOISE-P2 - To ensure that noise sensitive activities and the addition of habitable space to existing noise sensitive activities in the Commercial and General Industrial Zones, within 100m of state highways and the rail network, and within identified air noise boundaries for the Waipukurau Aerodrome shown on the Planning Maps, are acoustically designed and constructed to mitigate noise arising from legitimately established activities.

NOISE-S3- (1) The following Minimum External Sound Insulation Level Standards applies to all habitable spaces within any building that contains a noise sensitive activity within 100 metres of the sealed edge of a State Highway or the Rail Network Boundary, either:

- a. *Provide a design report prepared by an acoustic specialist prior to construction of the habitable spaces, demonstrating that road-traffic/rail network sound levels will not exceed 40 dB $L_{Aeq(24hr)}$ inside all habitable spaces; or*
 - b. *Provide a design report prepared by an acoustic specialist prior to construction of the habitable spaces, demonstrating that road-traffic/rail network sound levels will not exceed 57 dB $L_{Aeq(24hr)}$ outside the most affected part of the building exterior.*
 - 2. *The following applies to all buildings that contains a noise sensitive activity within 100 metres of the sealed edge of a State Highway or the Rail Network Boundary:*
 - a. *Where new habitable spaces with openable windows are proposed, a positive supplementary source of fresh air ducted from outside is required at the time of fit-out. The supplementary source of air is to achieve compliance with the Building Act to ensure adequate ventilation and fresh air.*
- 6.2 Kainga Ora, in submission S129.133 submits that the Policy NOISE P2 should be deleted, as the requirement in the policy is ‘overly restrictive and disproportionate to the level of risk’. Kainga Ora submits that the maximum zonal levels and insulation requirements of the Building Act/Building Code is a more appropriate means of managing internal sounds levels. For similar reasons, Kainga Ora is seeking the deletion of Rule NOISE S3.
- 6.3 None of the PDP submissions appear to dispute that road noise can cause adverse health effects for nearby occupiers. It is widely accepted nationally and internationally that road noise can cause adverse health and amenity effects on people living nearby.
- 6.4 Waka Kotahi has developed a publicly available guide: ‘*Guide to the management of effects on noise sensitive land use near to the state highway*’ (noise guide). This guide was developed regarding international guidelines on

noise effects and is intended to help local authorities in the planning of activities near the state highway.

- 6.5 The noise guide provides case studies to illustrate the impacts of road noise. One such case study in 2011 showed that noise modelling indicated that noise levels adjacent to the state highway network throughout the Auckland region could cause disturbance for new sensitive activities if they locate close to state highways. Similar noise disturbance patterns occur adjacent to state highways throughout New Zealand (noise guide)).
- 6.6 Waka Kotahi is unable to internalise all noise and vibration effects associated with existing state highways. Creating buffer areas (setbacks from the state highway) and acoustic treatment on new and altered buildings, are the most common means of protecting new noise sensitive activities from state highway noise. These types of provisions are commonly used in District Plans throughout New Zealand.
- 6.7 Waka Kotahi is undertaking state highway noise contour modelling across the country to more precisely ascertain noise levels adjacent to the state highway. This modelling takes into account features like topography and structures. Waka Kotahi has advised that this detailed modelling is not expected to be available in Central Hawke's Bay in the near future.
- 6.8 In the absence of detail noise modelling, which is not currently available for Central Hawke's Bay, the 100m effects area distance has been adopted by the PDP and Waka Kotahi as the appropriate distance to apply the noise insulation tests in Rule NOISE 03. This 100m distance is based off a simplified equation to determine the approximate buffer and effects area. The simplified equation does not take into account topography etc.
- 6.9 The Building Act (and Code) currently provides specifications to manage inter-tenancy noise (eg noise between residential apartments within the same building

with shared tenancy walls). It does not, however, provide requirements for management of noise generated from outside a building (eg transport noise or nightclub noise from a separate building). As such, the Building Act is not an appropriate means by itself to manage the effects from road noise.

- 6.10 It is widely accepted that the retrospective management/mitigation of transport noise effects is generally more difficult and expensive to achieve once activities have established adjacent to transport corridors. According to Acoustic Engineering Services Limited in their June 2020 report¹, the additional construction costs of noise mitigation for new dwellings and additions are typically in the range of 0% to 2% increase.
- 6.11 For the above reasons, in my opinion the approach taken in Rule NOISE 03 and Policy NOISE P2 is the most appropriate means of mitigating the effects on new noise sensitive activities that adjoin the state highway. These methods are efficient and effective and have been proven throughout the country.
- 6.12 The state highway network has an important economic and social function, so the protection of future occupants within new noise sensitive activities is important, as this also protects the transport network from reverse sensitivity effects.
- 6.13 Waka Kotahi's noise guide seeks to avoid sensitive activities up to 40m from the edge of a state highway (buffer area), Unfortunately, the omission of this provision in the PDP was not identified, and the 40m buffer area rule should have been sought in rural areas and incorporated into new urban areas in Central Hawke's Bay.

7.0 CONCLUSIONS

¹ Acoustic Engineering Services Limited, Report Reference AC20063-01-R2: Cost of Traffic noise mitigation measures, 12 June 2020.

7.1 In my view the noise provisions NOISE P2 and NOISE S3 are efficient and effective means of achieving Objectives NOISE-01 to 04 and should be retained as proposed. Objectives NOISE – 03 and NOISE - 04 should also be retained as proposed.

A handwritten signature in black ink, appearing to read 'Andrew Sowersby', written in a cursive style.

Andrew Sowersby

17 March 2022