BEFORE THE INDEPENDENT HEARINGS PANEL
OF HUTT CITY COUNCIL

UNDER	the Resource Management Act 1991 ("**RMA**")
AND	
IN THE MATTER	of the Proposed Hutt City District Plan ("**Proposed Plan**")

STATEMENT OF EVIDENCE OF DARRAN HUMPHESON ON BEHALF OF WASTE MANAGEMENT NZ LIMITED AND TE KĀREAREA LIMITED (HEARING STREAM EIGHT)

NOISE AND VIBRATION

27 OCTOBER 2026

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1. EXECUTIVE SUMMARY

1.1 This statement of evidence addresses noise and vibration matters relating to the proposed rezoning of 30 Benmore Crescent, Manor Park ("**Site**") from General Rural to General Industrial Zone, with a Benmore Crescent Precinct, or to a Special Purpose Industrial Zone, in the Proposed Plan.

1.2 The Site lies between State Highway 2 ("**SH2**") and the Wairarapa Line rail corridor, and is separated from the nearest residential properties on Mary Huse Grove by the rail corridor. Noise monitoring undertaken during 2025 at the nearest residential properties on Mary Huse Grove confirms that the existing acoustic environment is influenced by existing road traffic and rail movements.

1.3 I consider that the Proposed Plan's district wide Noise Chapter provides an appropriate effects based framework for managing noise and vibration from future activities at the Site. The applicable standards protect the receiving residential environment, account for the character of the noise, and require resource consent for activities that cannot comply. I do not consider that additional site specific numerical limits or fixed separation distances are acoustically justified.

1.4 Under the Proposed Plan, rezoning the Site to General Industrial would not change the daytime permitted noise limit applying where noise is received within the adjoining Residential Zone. It would increase the evening and night-time LAeq limits, and the night-time LAFmax limit, by 5 dB compared with the General Rural Zone. These permitted activity standards continue to apply at the residential receiving site and remain subject to adjustment for any special audible characteristics. An activity that would exceed them requires resource consent.

1.5 I have also considered the residential and mixed-use alternatives raised by submitters. Predicted road-traffic noise levels across the Site range from approximately 55 to 65 dB LAeq(24h), with additional noise from rail movements. While residential or mixed-use development may be feasible, it would be acoustically constrained, particularly in providing suitable outdoor amenity, and would introduce new noise sensitive activities beside established transport corridors, creating potential reverse sensitivity effects for those infrastructure providers.

1.6 I agree with the recommendation in the Section 42A Officer's Report for Hearing Stream Eight, dated 12 October 2026 ("**Section 42A Report**") to

rezone the Site, and the adjoining rail corridor, to General Industrial. From a noise and vibration perspective, the proposed zoning is appropriate, subject to the continued application of the district wide Noise Chapter. My conclusions would apply equally to a Special Purpose Industrial Zone, provided that noise from activities at the Site remained subject to the same district wide Noise Chapter standards at the neighbouring residential sites.

2. INTRODUCTION

2.1 My full name is Darran Humpheson. I am a Technical Director of Acoustics at Tonkin & Taylor Limited ("**T+T**") and have been in that role since 2019.

2.2 I hold a Bachelor of Science degree with Honours in Applied Physics and a Master of Science degree in Environmental Acoustics. I am a Member of the Acoustical Society of New Zealand and a Member of the United Kingdom's Institute of Acoustics. I am a New Zealand representative on ISO/TC 43/SC 1 "Noise" and a member of the Joint Standards Australia/Standards New Zealand Committee AV-001 Acoustics. I am also a practising commissioner under the Making Good Decisions programme.

2.3 I have been employed in acoustics since 1991. My previous roles include Technical Director positions with AECOM, Bureau Veritas and RPS Group plc, and Head of the Royal Air Force's Noise and Vibration Division.

2.4 I have extensive experience in environmental noise and vibration assessment, including land use planning, industrial activities, road and rail noise, resource consent applications, district plan provisions and expert evidence.

2.5 I have been engaged by Waste Management NZ Limited ("**WM**") and Te Kārearea Limited ("**TKL**") to assess noise and vibration matters relating to the proposed rezoning of approximately 13.21 ha of land at the Site, which is the subject of Hearing Stream Eight. The proposed rezoning is from General Rural Zone to General Industrial Zone.

2.6 T+T has also prepared acoustic assessments for the redevelopment of the Site, including a report for the proposed resource recovery park. I was the technical reviewer of those reports and have been involved with the Site since 2022.

2.7 The associated resource consent application for the proposed resource recovery park will be determined through a separate process. I have drawn on the acoustic assessment report where it provides relevant information about

the existing acoustic environment, nearby receivers, proposed activities and the practicability of complying with the applicable noise standards. However, the resource consent application concerns the effects of a particular proposal, whereas this evidence addresses the suitability of the proposed General Industrial zoning and the noise and vibration provisions that would apply to future activities at the Site.

2.8 I visited the Site in 2022 before T+T undertook its initial report. I am familiar with the wider area including SH2 and the Wairarapa Line rail corridor. I have reviewed the current plans, aerial information and other material available for the Site. In my opinion, that information is sufficient for the matters addressed in this evidence. The physical changes to the Site since my 2022 visit do not require a further site visit for the purpose of assessing the proposed zoning.

Code of conduct

2.9 Although this is a Council hearing, I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and have complied with it in preparing this evidence. I will continue to comply with it when giving oral evidence. Except where I state that I am relying on the evidence of another person, the issues addressed in this evidence are within my area of expertise, and I have not omitted material facts known to me that might alter or detract from my evidence.

3. SCOPE OF EVIDENCE

3.1 This statement of evidence will:

(a) describe the existing Site conditions relevant to noise and vibration;

(b) outline the noise and vibration framework for the Site under the proposed General Industrial Zone, compare it with the Operative Hutt City District Plan ("**Operative District Plan**"), and consider the appropriateness of those provisions;

(c) respond to noise and vibration matters raised in the Section 42A Report;

(d) respond to noise and vibration matters raised in submissions, including the residential and mixed-use alternatives; and

(e) provide an overall conclusion on the proposed rezoning from a noise and vibration perspective.

3.2 In preparing this evidence, I confirm I have read the following documents:

(a) the Operative District Plan noise provisions and relevant General Rural, General Industrial and Residential provisions;

(b) the Proposed Plan Noise Chapter and relevant General Industrial, General Rural and Residential zone provisions;

(c) the submissions and further submissions relevant to 30 Benmore Crescent and noise and vibration matters;

(d) the Manor Park Waste Management Facility Acoustic Assessment dated 31 October 2022 prepared by T+T;

(e) the Hearing Stream Seven evidence of Micky Yang, Angela Goodwin and Malcolm Hunt, including Mr Hunt's rebuttal evidence;[1] and

(f) the Section 42A Report and its appendices.

4. SITE CONTEXT

4.1 The Site comprises approximately 13.21ha of land at 30 Benmore Crescent, Manor Park. It is an elongated parcel bounded by SH2 to the west, the Wairarapa Line rail corridor to the east, and Te Awa Kairangi / Hutt River to the south. The Site is predominantly open but has been substantially modified by recent bulk earthworks and civil works.

4.2 The general landform falls from SH2, the highest feature to the west, towards Mary Huse Grove to the east. The principal intervening topographic feature is the rail embankment, which carries separate northbound and southbound rail lines and is approximately 1-2m higher than the adjoining Site and approximately 3m higher than the residential land. The embankment currently limits views across the largely undeveloped Site from properties on Mary Huse Grove and will provide acoustic screening of activities undertaken at lower elevations within the Site. The degree of screening will depend on the height and location of the relevant noise source.

4.3 The nearest residential area, Mary Huse Grove, lies to the east of the rail corridor. The KiwiRail designation is approximately 30m wide and physically separates the Site from the adjoining residential zone. The closest residential

[1] Mr Hunt's primary evidence is included in the Hearing Stream Seven Section 42A Report. His rebuttal evidence was issued separately.

properties on Mary Huse Grove are approximately 45m from the nearest corner of the Site, and residential properties on High Street are approximately 230m from the southern boundary of the Site.

4.4 The Site's location between SH2 and the rail corridor is an important feature of the existing acoustic environment. The acoustic environment is dominated by road traffic on SH2, with intermittent elevated noise from train movements on the adjoining rail corridor.

4.5 Current 2026 traffic flow data reported by Wellington Transport Analytics Unit ("**WTAU**") for SH2 comprises approximately 36,200 vehicle movements per day, including 34,400 light vehicles and 1,800 heavy vehicles.[2] The posted speed limit on SH2 is 100 km/h. Typically, there are two to four passenger trains per hour, one to two freight trains during the day and one to two freight trains at night.[3]

4.6 Long-term noise monitoring was undertaken by Marshall Day Acoustics at 31 and 39 Mary Huse Grove during 2025. Average daytime LAeq levels generally varied between approximately 52 and 55 dB, and average night-time LAeq levels between approximately 44 and 51 dB, depending on location and day of the week.[4] These results confirm that the receiving environment is already influenced by transportation noise.

4.7 As part of the land use consent application for WM's resource recovery park, I instructed a colleague at T+T to calculate road-traffic noise contours based on the WTAU 2026 traffic flow data. Although prepared for that application, the contours, as shown in Figure 1, describe the existing acoustic environment across the whole Site, irrespective of the activity that establishes there. The contours use the LAeq(24h) noise metric, being the energy-average sound level over a 24-hour period. The resulting contours across the Site range from approximately 55 to 65 dB LAeq(24h). I discuss the relevance of these noise levels in my response to the residential and mixed-use alternatives put forward by a number of submitters at paragraphs 7.11 to 7.17.

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2 Wellington Transport Analytics Unit, State Highway Traffic Volumes Dashboard, https://wellingtontransportanalytics.co.nz/state-highway-traffic-volumes-dashboard/ (accessed 14 October 2026).

3 Metlink, Hutt Valley Line timetable, https://www.metlink.org.nz/service/HVL/timetable (accessed 14 October 2026).

4 Marshall Day Acoustics, noise monitoring data for 31 and 39 Mary Huse Grove (2025), provided by Ms Goodwin on 10 March 2026.

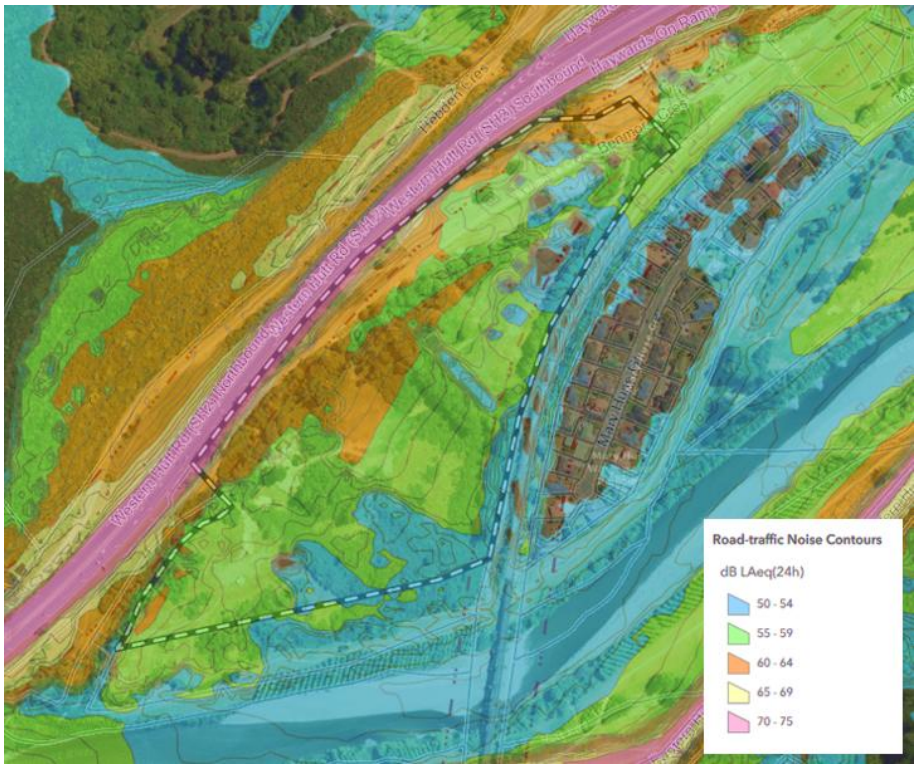

FIGURE 1 – Road-traffic noise contours across the Site, showing the Mary Huse Grove receivers and the Proposed Plan's High and Moderate Highway and Railway Noise Overlays (red dashed lines).

5. NOISE AND VIBRATION MANAGEMENT

5.1 In this section, I compare the operative and proposed permitted activity standards relevant to the Site and explain how those standards would manage noise and vibration if the Site were rezoned General Industrial.

5.2 Before I consider the noise standards, I address vibration. In summary:

(a) Operational vibration: I have reviewed Mr Hunt's and Mr Yang's Hearing Stream Seven evidence.[5,6] I agree that operational and construction vibration give rise to different effects and should not necessarily be managed through the same test. Construction vibration is temporary but can involve relatively high levels over short periods, whereas operational vibration may be recurring or continuous and requires an appropriate amenity control. I therefore support Mr Yang's recommendation that construction and

5 Hearing Stream Seven Section 42A Report, Appendix 3 (evidence of Mr Hunt), at [60]-[70].

6 Statement of Evidence of Micky Yang (Hearing Stream Seven) at [4.2]-[4.15].

operational vibration be addressed through separate provisions.[7] I do not consider that the proposed zoning requires an additional site specific operational vibration control.

(b) Construction vibration: In relation to the risk of building damage from construction vibration, I agree with the Hearing Stream Seven noise experts that NOISE-R5.1b should refer to the German standard DIN 4150-3:2016.[8]

(c) "Discernible" vibration thresholds: I also agree with the Hearing Stream Seven Section 42A Report, Mr Hunt, and Mr Yang that the threshold sought by some submitters, that vibration should not be "discernible" at residential properties, is unrealistic.[9] Vibration is already experienced day to day from existing sources, mainly vehicles on roads, and passenger and freight trains, so compliance with such a threshold could not practicably be measured or confirmed.

Permitted activity standards

5.3 Objective NOISE-O1 establishes the overarching outcome sought by the Proposed Plan: noise is to be managed so that it is compatible with the purpose, character and amenity values anticipated for the relevant zone, while protecting people's health and wellbeing. The permitted activity standards in NOISE-R1 and NOISE-APP1 give effect to that objective by setting noise limits that vary according to both the zone in which noise is generated and the receiving environment. The standards therefore recognise that different zones anticipate different levels of activity and acoustic amenity, while requiring each activity to achieve the applicable standards at or within the receiving site. Where those standards cannot be met, resource consent is required so that the effects can be assessed.

5.4 The Operative District Plan adopts a similar effects based approach, although its noise provisions are spread across the activity area rules rather than contained in a single district wide chapter. The Operative District Plan's

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7 Statement of Evidence of Micky Yang (Hearing Stream Seven) dated 29 September 2026 at [1.3(a)] and [4.2]–[4.4].

8 Statement of Evidence of Micky Yang (Hearing Stream Seven) dated 29 September 2026 at [1.3(c)] and [4.15]; Hearing Stream Seven Section 42A Report, Appendix 3 (evidence of Mr Hunt), at [72].

9 Hearing Stream Seven Section 42A Report at [143], and Appendix 3 (evidence of Mr Hunt) at [63]–[64]; Statement of Evidence of Micky Yang (Hearing Stream Seven) dated 29 September 2026 at [5.4].

overarching objective is to maintain or enhance amenity values by ensuring that the adverse effects of excessive noise are avoided or mitigated.[10] The associated policies recognise that background sound levels and acceptable noise levels vary across the city according to the activities anticipated in each activity area, and seek to protect residential areas through appropriate limits where they adjoin non-residential areas. The permitted activity standards in Rule 14C give effect to that framework by prescribing maximum noise levels for each activity area, in a similar way to the limits in NOISE-APP1.

5.5 I have compared the permitted activity noise standards that apply under the Operative District Plan with those that would apply under the Proposed Plan if the Site were retained as General Rural, rezoned General Industrial, or zoned for residential activities.

5.6 Under the Operative District Plan, noise is controlled through Rule 14C. Noise is measured in accordance with NZS 6801:1991 (Measurement of Sound) and assessed in accordance with NZS 6802:1991 (Assessment of Environmental Sound), using the L10 noise descriptor.[11] Construction, demolition and maintenance noise is assessed against the provisional version of NZS 6803P:1984 (Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work).

5.7 The Site is currently within the General Rural Activity Area. Rule 14C 2.1.10 (General Rural Activity Area) requires noise from non-residential activities to comply with the following limits when measured anywhere beyond the Site on which the activity takes place:

Period	**Operative General Rural limit**
7.00 am to 10.00 pm	50 dBA L10
10.00 pm to 7.00 am	40 dBA L10 75 dBA Lmax[12]

5.8 The lower night-time limit of 40 dBA L10 also applies during the daytime on Sundays and public holidays under the general provisions of Rule 14C 2.1 (Permitted Activity – Conditions) at subsection d.

5.9 The Proposed Plan adopts a different structure. Noise is measured in accordance with NZS 6801:2008 (Acoustics – Measurement of environmental

10 Operative District Plan, Chapter 14C (Noise), Objective 14C 1.1.

11 L10 is the sound level exceeded for 10% of the assessment period. In addition, LAeq is the energy-average sound level over the stated assessment period, and LAFmax is the highest A-weighted, fast-response sound level measured during the assessment period.

12 Operative District Plan, Rule 14C 2.1(e).

sound) and assessed in accordance with NZS 6802:2008 (Acoustics – Environmental noise). The applicable limits in NOISE-APP1 (Noise limits by emitting and receiving zone) depend on both the zone from which noise is emitted and the zone in which it is received. The Proposed Plan uses the LAeq (15min) descriptor, being the energy-average noise level over a 15-minute period. I explain the relevance of this change in descriptor at paragraph 5.17.

5.10 The Proposed Plan permitted activity limits most relevant to my evidence are summarised below. The limits are expressed as LAeq (15min) unless otherwise stated, with night-time maximum limits expressed as LAFmax. I have highlighted in grey the limits relevant to the existing and proposed zoning.

Zone where noise emitted	**Zone of receiving site**	**Day time 7am-7pm**	**Evening 7pm-10pm**	**Night-time 10pm-7am**
Rural	Residential, at any point within the receiving site	55 dB	50 dB	40 dB and 70 dB LAFmax
Rural	Rural, within the notional boundary of an activity sensitive to noise	55 dB	50 dB	45 dB and 75 dB LAFmax
Industrial	Residential, at any point within the receiving site	55 dB	55 dB	45 dB and 75 dB LAFmax
Industrial	Industrial, at any point within the receiving site	65 dB	65 dB	65 dB and 85 dB LAFmax
Residential	Residential, at any point within the receiving site	55 dB	50 dB	40 dB and 70 dB LAFmax

5.11 For noise received at the residential properties on Mary Huse Grove, rezoning the Site from General Rural to General Industrial would result in the following changes to the Proposed Plan permitted limits:

(a) no change during the daytime, with both zones subject to a limit of 55 dB LAeq (15min);

(b) an increase of 5 dB during the evening, from 50 to 55 dB LAeq (15min);

(c) an increase of 5 dB during the night, from 40 to 45 dB LAeq (15min); and

(d) an increase of 5 dB in the night-time maximum level, from 70 to 75 dB LAFmax.

5.12 Industrial zones generally provide for higher noise limits because they anticipate a greater intensity of activity and a different level of amenity from rural and residential zones. Notwithstanding those higher limits, permitted

activities within an industrial zone must continue to comply with the permitted activity standards applicable at the receiving site. I acknowledge that industrial noise may exhibit characteristics that make it more noticeable or intrusive than noise at the same measured level. However, NZS 6802:2008 expressly accounts for this through adjustments for special audible characteristics ("**SAC**"), including tonal and impulsive sounds. Where such characteristics are present, a penalty is added to the measured or predicted noise level to establish the rating level used to assess compliance.

5.13 Examples of industrial noise sources that may warrant an adjustment for SAC include tonal noise from fans, motors, transformers, compressors or pumps; reversing alarms or other warning devices; and impulsive noise from metal impacts, container handling, and loading or tipping activities. In practical terms, if industrial noise at Mary Huse Grove contains tonal or impulsive characteristics, such as a clearly audible reversing alarm or repeated metal impacts, the measured or predicted level is penalised before it is compared with the permitted standard. Whether an adjustment is warranted depends on whether those characteristics are audible at the assessment location. The presence of a potentially tonal or impulsive source does not, by itself, establish that an adjustment applies. NZS 6802:2008 sets out the procedures for determining whether an adjustment applies.

5.14 For example, where an industrial noise source exhibits SAC, NZS 6802:2008 typically requires a 5 dB adjustment to be added to the measured or predicted level when determining the rating level. By way of illustration, the separate assessment of the resource consent application for WM's proposed resource recovery park applied the 5 dB adjustment to sources assessed as having SAC. The predicted rating levels therefore already included that penalty when compared with the applicable limits. The same approach would apply to any other industrial activity at the Site. I should note that the LAFmax standard is a separate maximum noise control and is not subject to the SAC adjustment.

5.15 Accordingly, where noise emitted from the proposed General Industrial Zone and received at the neighbouring residential sites has SAC, the measured or predicted noise level would need to be no more than 50 dB LAeq (15min) during the daytime and evening, and 40 dB LAeq (15min) at night, for the rating level to comply with the 55 dB and 45 dB limits in NOISE-APP1 (described in the table at paragraph 5.10). Compared with a source without SAC operating from a General Rural Zone, that use could operate at a 5 dB higher noise level during the daytime (55 dB during the daytime), with the same requirements applying during the evening and night-time periods (50 dB during the evening

and 40 dB at night). I acknowledge that a source with SAC operating from a General Rural Zone would also attract the adjustment. However, the comparison illustrates that the higher nominal industrial zone limits do not necessarily provide greater noise generating capacity where the noise has characteristics that attract attention, which I understand is the type of industrial noise of most concern to submitters.

5.16 The Proposed Plan also changes the assessment time periods and noise descriptors. The Operative District Plan applies a single daytime period from 7.00 am to 10.00 pm, whereas the Proposed Plan separates this into a daytime period ending at 7.00 pm and an evening period from 7.00 pm to 10.00 pm. For noise emitted from a General Rural or Residential Zone, the evening limit is 5 dB lower than the daytime limit. For noise emitted from a General Industrial Zone and received in a Residential Zone, the daytime and evening limits are both 55 dB LAeq (15min). The Proposed Plan's use of a 15-minute assessment period makes the rating level more responsive to shorter duration noise events than an assessment averaged over a longer period.

5.17 The change from L10 to LAeq (15min) modernises the measurement descriptor and aligns the Proposed Plan with the 2008 editions of NZS 6801 and NZS 6802 and the National Planning Standards (Noise metrics). The two descriptors are not directly interchangeable, although for many relatively steady sources the numerical difference is generally small.

5.18 There is also an important difference in assessment location. The Operative General Rural standard applies "anywhere beyond" the Site generating the noise. Under the Proposed Plan, noise received in a Residential Zone is assessed at any point within the receiving site, while noise received in a Rural Zone is assessed within the notional boundary of an activity sensitive to noise. This receiving environment approach is consistent with NZS 6802:2008 and avoids requiring compliance at an intervening boundary where no noise sensitive activity occurs.

5.19 For the Mary Huse Grove properties, this means that the residential limits apply anywhere within each property, including gardens and outdoor living areas. The notional boundary approach applies to noise sensitive activities in rural zones and is not relevant to the residential properties on Mary Huse Grove. This distinction is relevant to the Site because the approximately 30m wide rail corridor separates the Site from the residential properties on Mary Huse Grove. Assessing noise at the boundary of the Site or within the rail corridor (if it retains its notified Medium Density Residential zoning) would impose a more restrictive effective limit, without assessing noise where the residential effect

is actually experienced.[13] In my opinion, assessing compliance within the residential receiving sites is the more appropriate effects based approach.

6. RESPONSE TO THE SECTION 42A REPORT

6.1 The Section 42A Report recommends that the Site be rezoned from General Rural to General Industrial Zone.[14] It also recommends that the adjoining rail corridor be rezoned from Medium Density Residential to General Industrial Zone, and that site specific provisions be applied through a Benmore Crescent Precinct.[15]

6.2 I support those recommendations from a noise and vibration perspective. In particular, the General Industrial Zone provides a framework intended to manage adverse effects within the zone and at interfaces with other zones. The district wide Noise Chapter would continue to control noise and vibration received at sensitive sites.

6.3 The Reporting Officer recommends rejecting the requested 400m and 500m separation provisions sought by the Manor Park and Haywards Residents Community Incorporated Society ("**Residents' Society**"), noting the absence of evidence justifying those distances and the ability of the existing zone provisions and resource consent process to address actual effects.[16] I agree. Fixed separation distances do not account for the type, scale, location, design or mitigation of an activity, or the actual noise levels at receiving sites. An effects based approach is more appropriate.

6.4 The Section 42A Report recommends a 10m setback for buildings and structures within the Benmore Crescent Precinct and additional design assessment for buildings exceeding 1,000m² gross floor area.[17] Those provisions are not acoustic controls, but they may provide incidental opportunities for separation, screening and appropriate orientation of noise generating activities. I have no acoustic objection to them.

6.5 The Reporting Officer recommends rejecting residential and mixed-use alternatives.[18] The Section 42A Report identifies, among other matters, the

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13 I note that the Section 42A Report recommends that the rail corridor be rezoned General Industrial Zone, which I support and address at paragraph 6.6.

14 Section 42A Report at [215] and [248].

15 Section 42A Report at [128], [177]-[179] and [248]-[249].

16 Section 42A Report at [114] and [138].

17 Section 42A Report at [127](e) and [129].

18 Section 42A Report at [159]-[160] and [178].

Site's location between SH2 and the rail corridor and the High and Moderate Highway and Railway Noise Overlays as constraints on residential development.[19] My assessment above provides additional acoustic support for that conclusion. The predicted road-traffic noise exposure, together with rail noise, would require a deliberate design response and would constrain the provision of residential outdoor amenity. I discuss these constraints further at paragraphs 7.11 to 7.17.

6.6 I also support the Reporting Officer's recommendation to rezone the adjoining rail corridor from Medium Density Residential to General Industrial Zone.[20] The rail corridor is not a noise sensitive receiving environment. Retaining residential zoning on the corridor would not reflect its transport function and would apply residential interface standards to the Site, even though no residential activity can occur within the corridor.

6.7 Overall, I agree with the Section 42A Report that the adverse noise and vibration effects raised by submitters can be managed through the General Industrial Zone provisions, the district wide Noise Chapter and, where required, the resource consent process.[21] I do not recommend any additional precinct specific noise or vibration provisions.

7. RESPONSE TO SUBMISSIONS

7.1 The Reporting Officer identifies approximately 134 resident submissions on a common template that seek that development at the Site avoids adverse effects on the natural environment and the existing Manor Park community, with many also opposing industrial activities and waste facilities on the Site.[22] I acknowledge those concerns. Together with the other submissions, they raise the following principal noise and vibration matters relevant to my evidence:

(a) concerns about noise and vibration from the consented earthworks at the Site;[23]

19 Section 42A Report at [21] (Figure 3) and [160].

20 Section 42A Report at [174]-[177] and [179].

21 Section 42A Report at [126], [196] and [244].

22 Section 42A Report at [44]–[48], [58] and [183]–[185], pages 16–18, 20 and 48.

23 For example, Residents' Society, 377.11 (seeking that construction activities be excluded from the definition of "temporary activity").

(b) the potential for future industrial and waste management activities to generate noise and vibration effects during the daytime, evening and night-time periods;[24]

(c) the potential effects of those activities on the amenity, health and wellbeing of the established residential community, including the use and enjoyment of outdoor living areas, and concern that the General Industrial Zone would enable activities incompatible with the character and amenity of the adjoining residential area;[25]

(d) the proximity of the Site to residential properties and requests for greater separation between industrial or waste management activities and residential land;[26]

(e) requests for more restrictive noise and vibration controls, including provisions requiring vibration not to be discernible at residential properties;[27]

(f) requests that the General Rural Zone be retained, or that a bespoke or split zoning be adopted to provide for residential, mixed-use, open space or other activities considered more compatible with the adjoining community;[28] and

(g) concern that the existing and proposed planning provisions may not adequately manage the cumulative or combined effects of future activities at the Site.[29]

7.2 I address these matters below.

Consented earthworks

7.3 A number of submissions raise concerns about noise and vibration from the consented earthworks at the Site. I acknowledge those concerns. However,

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24 For example, Yashika De Costa, 92.1 and 92.2, as summarised in the Section 42A Report at [81]-[82].

25 For example, Residents' Society, 377.9, as summarised in the Section 42A Report at [79].

26 For example, Residents' Society, 377.7 and 377.8, as summarised in the Section 42A Report at [78]-[79].

27 For example, Residents' Society, 377.10(b), as summarised in the Statement of Evidence of Micky Yang (Hearing Stream Seven) dated 29 September 2026 at [5.2].

28 For example, Residents' Society, 377.4 (seeking retention of the General Rural Zone or, in the alternative, a bespoke or split zone), as summarised in the Section 42A Report at [131].

29 For example, Shayne Hawtin, 36.1.

construction and earthworks are temporary activities. Both the Operative District Plan and the Proposed Plan anticipate that construction may generate higher noise levels than would be acceptable from ongoing activities, and assess construction noise under a separate construction noise framework rather than the ordinary permitted activity standards. The effects of the consented earthworks, and their compliance, are not matters for determination in Hearing Stream Eight.

Future industrial noise and vibration

7.4 I acknowledge some submitters' concerns that future industrial activities may generate noise of a different level or character from activities anticipated under the existing zoning. However, the proposed rezoning would not provide an unrestricted entitlement to generate noise. As I have explained, future activities would still need to comply with the standards applicable at the receiving site, including adjustments for SAC, or obtain resource consent so that their particular effects and mitigation could be assessed.

7.5 The permitted activity standards apply to the total noise from activities occurring within the relevant site, rather than to each individual source in isolation. Accordingly, where several activities or items of plant operate concurrently, their combined noise contribution must comply with the applicable receiving site standard. The framework therefore provides for the combined noise effects of development within the Site as a whole.

Residential amenity and outdoor living

7.6 Some submissions raise concerns about potential effects on residential amenity, including the use and enjoyment of private outdoor living areas. In my opinion, those effects are appropriately addressed through the effects based framework of the Proposed Plan's Noise Chapter.

7.7 As I have already noted, Objective NOISE-O1 requires noise to be managed so that it is compatible with the purpose, character and amenity values anticipated for each receiving zone, while protecting people's health and wellbeing. NOISE-R1 and NOISE-APP1 give effect to that objective by applying lower permitted noise limits where noise is received within a Residential Zone, irrespective of the zoning of the site generating the noise. Those limits apply to outdoor noise anywhere within the receiving site, and therefore directly address noise experienced in gardens and other outdoor living areas. Compliance is also assessed under NZS 6802:2008, including adjustments where SAC make a sound more noticeable or intrusive. In my opinion, this combination of receiving site standards and assessment of noise

character provides an appropriate framework for protecting residential amenity.

Separation distances and site-specific controls

7.8 The Residents' Society seeks separation distances of 400m or 500m between specified industrial or waste management activities and residential zones. In my opinion, fixed separation distances are not an appropriate substitute for effects based noise and vibration controls. The effect experienced at a receiving site depends not only on distance, but also on the nature, scale and duration of the activity; the sound power, location and directivity of the sources; operating hours; intervening topography and buildings; screening and enclosure; and the character of the noise. A well designed activity at a shorter distance may produce lower noise levels at a residential receiver than an unmitigated activity located further away. The relevant acoustic consideration is therefore the rating level and character of the noise experienced at the receiving site, assessed against the applicable permitted activity standards, rather than the separation distance in isolation.

7.9 As identified in the Section 42A Report, the proposed 400m and 500m distances are not tied to any specified noise outcome and would apply irrespective of the design or actual effects of an activity. In contrast, the district wide Noise provisions of the Proposed Plan set measurable standards at the receiving site. Where an activity cannot comply with those standards, resource consent is required, allowing its particular noise and vibration effects and proposed mitigation to be assessed. I therefore do not consider an additional fixed separation distance or site specific control necessary.

More restrictive noise and vibration controls

7.10 Some submitters seek more restrictive noise and vibration controls, including provisions requiring vibration not to be discernible at residential properties. For the reasons set out at paragraph 5.2(c), I do not consider a "discernible" vibration threshold to be practicable. More generally, the district wide Noise Chapter already sets measurable standards at the receiving site, which account for SAC, and requires resource consent where those standards cannot be met. I therefore do not consider that more restrictive noise or vibration controls are acoustically justified for the Site.

Residential and alternative zoning

7.11 The Residents' Society seeks, as an alternative zone option for the Site, a bespoke or split zoning that could contemplate residential, mixed-use, open

space or other activities. Other submitters have also suggested residential, mixed-use or light industrial development for at least part of the Site.

7.12 From an acoustic perspective, the Site is constrained by its location between SH2 and the Wairarapa Line rail corridor. These established transport corridors would expose future residents to continuous road-traffic noise and intermittent rail noise events. The Proposed Plan itself identifies parts of the Site as subject to High and Moderate Highway and Railway Noise Overlays.

7.13 The road-traffic noise contours described in paragraph 4.7 indicate levels of approximately 55 to 65 dB LAeq(24h) across the Site. While residential development may be feasible, it would be acoustically constrained. It would require deliberate design and mitigation to address indoor noise exposure and, in particular, to provide suitable outdoor amenity.

7.14 Building envelope treatment and mechanical ventilation could provide reasonable internal sound levels. Those measures would not reduce noise in private gardens, balconies, communal outdoor areas or other outdoor living spaces. Setbacks, orientation, building massing and acoustic screening may create quieter outdoor areas within a comprehensively designed development, but those outcomes would need to be demonstrated through a site specific acoustic assessment.

7.15 From my experience, road-traffic noise levels around 60 dB LAeq would not prevent normal residential activities such as conversation, gardening, children's play or outdoor dining. However, the outdoor environment would not be experienced as quiet, and road-traffic noise would be clearly audible and likely to be a prominent feature of the acoustic environment. Conversation would generally remain practicable, although some increase in vocal effort may be required during louder traffic or train pass-by events. Overall, the principal effect would be a reduction in acoustic amenity, particularly for residents seeking quiet enjoyment of private outdoor living areas.

7.16 Residential use would also introduce additional noise sensitive activities beside SH2 and the rail corridor. This creates potential reverse sensitivity effects for those established transport networks.

7.17 In my opinion, the acoustic environment does not support treating the Site as an unconstrained extension of the adjoining residential neighbourhood. If residential or mixed-use zoning were considered, provisions would be required to address indoor amenity, outdoor amenity and reverse sensitivity. From an acoustic perspective, General Industrial zoning is more compatible with the

Site's location between established transport corridors, provided effects on existing residential receivers are controlled through the district wide noise provisions.

Overall adequacy of the planning framework

7.18 For the reasons above, I consider that the Proposed Plan provides an appropriate effects based framework for managing noise and vibration from the range of future industrial activities that could establish at the Site, and that additional controls are not necessary.

8. CONCLUSION

8.1 The Proposed Plan provides an appropriate effects based framework for managing noise and vibration from future activities at the Site. Rezoning would not change the daytime limit at Mary Huse Grove, although the evening and night-time limits would increase by 5 dB, and all standards continue to apply anywhere within the residential receiving sites, including gardens and outdoor living areas. Where industrial noise has special audible characteristics, such as tonality or impulsiveness, the 5 dB adjustment under NZS 6802:2008 means the effective requirement at those homes would be the same as, or more stringent than, that applying to noise without those characteristics from the existing General Rural Zone. Activities that cannot comply must obtain resource consent so that their particular effects and mitigation can be assessed.

8.2 The residential alternatives raised in submissions would place noise sensitive activities between SH2 and the rail corridor, in an environment with road-traffic noise of approximately 55 to 65 dB LAeq(24h) across the Site. Although building treatment could address indoor noise, residential development would remain acoustically constrained, particularly in relation to outdoor amenity, and would create reverse sensitivity risk for those established transport corridors. From an acoustic perspective, General Industrial zoning is more compatible with the Site's location.

8.3 I therefore support the Section 42A Report's recommendation to rezone the Site and adjoining rail corridor as General Industrial. I do not consider that additional precinct specific fixed separation distances or site specific noise and vibration controls are necessary.

Darran Humpheson

27 October 2026