

WELLINGTON CITY COUNCIL

Hearing of Submissions and Further Submissions

on

Proposed District Plan

Report and Recommendations of the Independent Hearing Panel

Hearing Stream 5

Report 5A

**Overview of General Matters
Noise**

Commissioners

Robert Schofield (Chair)

Jane Black

Lindsay Daysh

Rawiri Faulkner

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EXECUTIVE SUMMARY

1. This report addresses submissions on the district-wide noise provisions of the PDP. Panel Report 5B addresses submissions on the natural hazards and coastal hazards provisions of the PDP, while Panel Report 5C addresses submissions on the subdivision, earthworks and three waters provisions.
2. Managing the effects of noise is an important function of District Plans. Noise is an environmental effect that has the potential to cause adverse effects, from simple annoyance through to significant effects on public health and wellbeing. It is a frequent cause of complaints, often creating conflict between incompatible activities, leading to the phenomena of reverse sensitivity. Under the direction of the RPS, the Plan has a particular role in managing reverse sensitivity issues for significant infrastructure like the airport, state highways and rail.
3. Apart from a range of minor matters, the key issues in contention in relation to the noise provisions were:
 - Airport noise, in relation to managing reverse sensitivity
 - The relationship between Wellington Airport designation conditions and standards in the Noise chapter
 - Acoustic insulation and ventilation, and
 - Vibration in relation to railway lines and state highways.
4. In relation to managing the further development of noise sensitive activities around the Airport, we are satisfied that the PDP has taken an appropriately balanced approach, enabling a degree of residential development subject to compliance with acoustic treatment and ventilation requirements, and consent for more intensive development, particularly in High Noise Areas.
5. The PDP had replicated many of the conditions that apply to the various Airport designations in relation to noise management as noise standards in order to provide a basis for enforcement proceedings on third parties. Based on the advice of the planners for the Council and Airport, we recommend deleting many of those standards, which inappropriately or unnecessarily replicated designation conditions that are the responsibility of the Airport to meet.
6. The PDP adopted a unified approach to the specifications for the acoustic treatment of buildings containing noise sensitive activities (primarily residential) in the defined areas of high and moderate noise in the City, based on the approach used for some

high Noise Areas in the City under the ODP, referred to as the 'standardised level difference' method. This was the subject of considerable expert evidence at the hearing, with divergences in opinion, principally on whether this method should be applied to residential buildings in the Airport noise overlays, or whether the ODP 'indoor noise level' approach should be used.

7. We determined that the standardised level difference method should be uniformly applied to all High and Moderate Noise Areas, including the Air Noise Overlays, as we concluded the advantages and benefits of this method outweighs its disadvantages, as well as the advantages of the inner noise limit.
8. Ventilation standards for buildings containing noise sensitive activities in High and Moderate Noise Areas are important to support the effective acoustic treatment of those buildings. Following conferencing of the relevant experts, a substantial rewrite of the ventilation standards is being recommended to make them more effective.
9. In terms of vibration, while we accept that there may be a case for development controls near the major transport corridors (state highways and rail) due to the vibration effects of traffic, there was insufficient evidence and information on which to make any specific recommendations in terms of Plan provisions or mapping.

1 INTRODUCTION TO STREAM 5

1.1 Topics of Hearing

1. Hearing Stream 5 focused on the provisions of the PDP that relate to natural hazards and coastal hazards, noise, subdivision, three waters and earthworks. Specifically, the Hearing addressed submissions on the following matters that were the subject of five Section 42A Reports:
 - Natural hazards and coastal hazards – prepared by Mr Jamie Sirl
 - Noise – prepared by Mr Mark Ashby, with input from Malcom Hunt and Sean Syman, acoustic experts
 - Subdivision – prepared by Ms Hannah van Haren-Giles
 - Three Waters – prepared by Ms Maggie Cook
 - Earthworks – prepared by Ms Hannah van Haren-Giles.
2. The Design Guide for subdivision was addressed in the Wrap-up Hearing as part of the report back from the review process of the Design Guides.
3. The outcomes and final recommendations of the Design Guide review were reported back in the wrap up/integration hearing in September.
4. The Hearing Panel's report and recommendations on the Design Guides in general, as well as their relationship with the PDP, are set out in Panel Report 2A. We discuss the specific conclusions we have reached on the Subdivision Design Guide, and the Plan provisions referencing it, taking account of the additional material we heard in the wrap up/integration hearing, in Panel Report 5C.
5. This Report should be read in conjunction with Report 1B, which discusses relevant strategic objectives, and with Report 1A which sets out background on:
 - Appointment of commissioners;
 - Notification and submissions;
 - Procedural directions;
 - Conflict management;
 - Statutory requirements;
 - General approach taken in reports; and

- Abbreviations used.

1.2 Hearing Panel

6. The Stream 5 hearing commenced 1 August 2023 and concluded on 7 August 2023. The wrap up/integration hearing commenced on Tuesday 20 September and concluded on Thursday 22 September.
7. By resolution of the Council on 8 December 2022, the Council appointed an eight member hearing panel to hear and make recommendations on submissions and further submissions on the PDP pursuant to Section 34A of the RMA.
8. For Hearing Stream 5, the Hearing Panel comprised the following:
 - Robert Schofield (Planner) as Chair
 - Jane Black (Urban Planner)
 - Lindsay Daysh (Planner)
 - Rawiri Faulkner (Resource Management Consultant).
9. For the Wrap-up and Integration hearing, the Hearing Panel comprised the following:
 - Robert Schofield (Planner) as Chair
 - Heike Lutz (Building Conservation Consultant)
 - Lindsay Daysh (Planner)
 - Elizabeth Burge (Resource Management Consultant)
 - David McMahon (Planner).

1.3 Procedural Directions

10. The Hearing Panel has issued procedural Minutes as required. The first of these Minutes, dated 9 December 2022 set out detailed hearing procedures that the Hearing Panel intended to follow. Those procedures included provision for pre-circulation of expert evidence, legal submissions and lay presentations, set out the process for applications for cross examination in relation to ISPP matters, and described in general terms the format of the hearings. These procedures applied to Hearing Stream 5.

11. As directed by Minute 15, the hearing of submissions on the Design Guides for the Centres and Mixed Use Zones and related PDP provisions was postponed until the IPI Wrap-up Hearing held in September 2023 to enable the Council to undertake further work on the Design Guides in conjunction with the joint conferencing of urban designers.
12. In Minute 16, the Hearing Panel issued the timetable for the circulation of reports, evidence, legal submissions, and statements/presentations for Hearing Stream 5. Further directions for Hearing Stream 5 were issued through Minute 24, dated 21 June 2023, first to grant leave to Wellington International Airport Limited (WIAL) to present high-level evidence on the WIAL's Obstacle Limitation Surface designation in the PDP, and second to direct that the Subdivision Design Guide be included in the Design Guide review process.
13. Following the conclusion of the Hearing on 7 August 2023, the Panel issued Minute 33 to outline the matters on which the Panel sought a final reply from the Council. This Minute also included a direction for conferencing to occur between the acoustic experts and between the ventilation experts. The purpose of this conferencing was to determine whether any agreement could be reached between the relevant experts on the standards for mechanical ventilation and for acoustic insulation. The Joint Witness Statements that came out of these conferencing sessions were received on 15 September 2023.

1.4 Conflict Management

14. For Hearing Stream 5, the Chair, Robert Schofield, recused himself from hearing or deliberating on the submission from Transpower, while Commissioner Daysh recused himself from hearing or deliberating on submissions on the Airport Noise provisions, and in relation to the submissions of CentrePort.
15. Otherwise, there were no conflicts of interest that required any of the panellists to recuse themselves from hearing and deliberating on any particular matter or submitter.

1.5 Statutory Requirements

16. The relevant statutory functions, considerations, and requirements for the review of the District Plan are outlined in Panel Report 1A.

1.6 General Approach to our Evaluation

17. Both in relation to matters heard as part of the ISPP, and other matters, we are required to provide reasons for our recommendations on the matters raised in submissions, but the RMA provides that we may group submissions according to the provisions or matters to which they relate.
18. The Section 42A Reports provided to us by Council's Reporting Officers provide a comprehensive summary of the submissions made on the PDP in respect of each hearing topic. We have generally aligned our reports with the structure of the relevant Section 42A Report, and have adopted the general approach of focussing principally on those aspects of each Section 42A Report where we either disagreed with the reasoning and/or recommendations in the Section 42A Report, or where material provided to us by submitters called the reasoning/recommendations in the Section 42 Report into question.
19. We have focused our evaluation on the principal matters in contention. If we do not refer specifically to an individual submission or group of submissions on a particular point, that is because having reviewed the submissions, and the commentary in the relevant Section 42A Report, we accept and adopt the recommendations in the latter.
20. It follows also that where we accept the recommendation in a Section 42A Report that provisions in the PDP should be amended, we accept and adopt the evaluation contained in the Section 42A Report for the purposes of Section 32AA of the RMA, unless otherwise stated. Where we do not accept the recommendations of the Section 42A Report and have determined that a provision in the PDP should be changed, our decisions have been specifically considered in terms of the obligation arising under Section 32AA of the RMA to undertake a further evaluation of the amended provision. Our evaluation for this purpose is not contained in a separate evaluation document or tabulated evaluation attached to our report. Rather, our evaluation is contained within the discussion leading to our conclusions.

2 OVERVIEW OF HEARING STREAM 5

2.1 Hearing Arrangements

21. As above, the Stream 5 hearing commenced on Tuesday 1 August 2023, and concluded on Monday 7 August 2023.
22. Over the balance of the hearing, we heard from the following parties:

For Council:

- Nick Whittington (Counsel)
- Mark Ashby (Reporting Planner, Noise)
- Malcolm Hunt and Sean Syman (Acoustic experts)
- Maggie Cook (Reporting Planner, Three Waters)
- Hannah van Haren-Giles (Reporting Planner, Earthworks and Subdivision)
- Jamie Sirl (Reporting Planner, Natural Hazards and Coastal Hazards)
- Alistair Osborne (Flood Hazard Modelling)
- Angela Griffin (Liquefaction)
- Connon Andrews (Coastal Inundation)
- David Burbridge (Tsunami risks)
- Dr Nicola Litchfield (Fault Rupture)
- James Beban (Natural Hazards Planning)
- Nadia Nitsche (Hydraulics and Hydrology)

For AdamsonShaw¹:

- Frank Sutton

For Tyers Stream Group²:

- Lynn Cadenhead

For WCC Environmental Reference Group³:

¹ Submission #137

² Submission #221

³ Submission #377

- Spencer Clubb

For the Strathmore Park Residents Association⁴:

- Glenn Kingston

For Guardians of the Bays (**GOTB**)⁵:

- Yvonne Weeber

For NZDF⁶:

- Karen Baverstock
- Rebecca Davies (Planning)
- Darren Humpheson (Acoustics)

Yvonne Weeber⁷

For FirstGas⁸:

- Graeme Roberts (Planning)

For Transpower⁹:

- Rebecca Eng
- Roy Noble
- Pauline Whitney (Planning)

John Tiley¹⁰

For CentrePort¹¹:

- William Woods
- Kate Searle (Planning)

For HNZ¹²:

- Dean Raymond (Planning)

⁴ Submission #371

⁵ Submission #452

⁶ Submission #423

⁷ Submission #340

⁸ Submission #304

⁹ Submission #315

¹⁰ Submission #142

¹¹ Submission #402

¹² Submission #70

For Survey & Spatial¹³:

- Dave Gibson

For NZ Agricultural Aviation Association¹⁴:

- Tony Michelle
- Lynette Wharfe

For Richard Murcott¹⁵ and Thorndon Residents' Association¹⁶:

- Richard Murcott
- Melissa Ludlow
- Lance Gunderson

For GWRC¹⁷:

- Richard Sheild (Planning)
- Chloe Nannestad

For Living Streets Aotearoa¹⁸:

- Ellen Blake

For JCA¹⁹:

- Warren Taylor
- Mārie Therese

For Kāinga Ora²⁰:

- Bal Matheson (Counsel)
- Brendon Liggett
- Matt Lindenberg (Planning)
- Jon Styles (Noise)
- Lance Jimmieson (Ventilation)

¹³ Submission #439

¹⁴ Submission #40

¹⁵ Submission #322

¹⁶ Submission #333

¹⁷ Submission #351

¹⁸ Submission #482

¹⁹ Submission #429

²⁰ Submission #391

- Jennifer Caldwell (Counsel)
- Natalie Summerfield (Counsel)
- Victoria Woodridge (Planning)

For WIAL²¹:

- Kirsty O'Sullivan (Planning)
- Lachlan Thurston
- Jo Lester
- John Kyle (Planning)
- Darren Humpheson (Acoustics)

For Board of Airline Representatives of New Zealand (**BARNZ**)²²:

- Gillian Chappell (Counsel)
- Tony Michelle

For Stride²³ and Investore²⁴:

- Bianca Tree (Counsel)
- Amy Dresser
- Janice Carter (Planning)

For Argosy²⁵, Oyster²⁶, Fabric²⁷ and Precinct Properties²⁸:

- Bianca Tree (Counsel)
- Amy Dresser
- Janice Carter (Planning)
- Sam Morgan (Coastal Hazards)

²¹ Submission #46

²² Further Submission #139

²³ Submission #470

²⁴ Submission #405

²⁵ Submission #383

²⁶ Submission #404

²⁷ Submission #425

²⁸ Submission #139

For KiwiRail²⁹:

- Kristen Gunnell (Counsel)
- Julia Fraser
- Michael Brown
- Stephen Chiles (Acoustics)
- Catherine Heppelthwaite (Planning)

For Waka Kotahi³⁰:

- Stephen Chiles (Acoustics)
- Catherine Heppelthwaite (Planning)

For Stratum Management³¹:

- Craig Stewart
- Mitch Lewandowski (Planning)

23. Copies of the speakers' speaking notes and/or presentations were provided and are available online, together with the expert evidence and legal submissions.

24. We also received tabled material from the following parties:

- Chris Horne, Planning, for Telcos³²
- Jarrod Dixon, Planning, for Oil Companies³³
- Pauline Whitney, Planning, for Horokiwi Quarries Limited³⁴
- Kay Panther Knight, Planning, for Woolworths NZ Limited³⁵
- Zach Chisam, Planning, for MoE³⁶.

25. All of the expert evidence, submitter statements, speaking notes, presentations and legal submissions were made available on the PDP website.

²⁹ Submission #408

³⁰ Submission #370

³¹ Submission #249

³² Further submission #25

³³ Submission #372

³⁴ Submission #271

³⁵ Submission #359

³⁶ Submission #400

26. No additional reports or submissions were heard on the topics in Hearing Stream 5 at the wrap up/integration hearing in September 2023, except in regard to the Subdivision Design Guide on which evidence from Mr Rae and Mr Heale was provided.
27. No specific site visit was undertaken in relation to Hearing Stream 5.

2.2 Report Organisation

28. The Panel reports for Hearing Stream 5 are organised as follows:
 - Report 5A – Overview and Noise
 - Report 5B – Natural hazards and coastal hazards
 - Report 5C – Subdivision, Three Waters, and Earthworks.

2.3 Overall Conclusions on District-wide Matters

29. We have sought to address all material issues of the parties who have appeared before us put in contention in relation to the district-wide issues relating to noise, natural and coastal hazards, subdivision, earthworks, and three waters.
30. To the extent that we have not discussed submissions on this topic, we agree with and adopt the reasoning of the Section 42A Reports prepared by Mr Sirl, Ms Cook, Mr Ashby, and Ms van Haren-Giles, as amended in their written Replies.
31. Appendix 1 sets out the amendments we recommend should be made to the PDP. We note that in the case of the Subdivision Design Guide, we have recommended it be deleted as the matters it addressed are either covered by other design guides or can be addressed through provisions in the PDP.
32. Appendix 2 sets out in tabular form our recommendations on the submissions allocated to Hearing Stream 5 topics considered in this report (including those transferred from the Wrap-up/Integration hearing). Our recommendations on relevant further submissions reflect our decisions on the primary submission to which they relate.
33. We note the out-of-scope recommendations we have made:
 - A new rule SUB-R# to implement subdivision policy SUB-P17 to manage the subdivision of land within the ridgelines and hilltops overlay or within the ridgetop area of the Upper Stebbings and Glenside West Development Area

- A restructuring of the rules relating to natural hazards by collating together all rules relating to a specific natural hazard to show Plan users the ‘cascade’ of activity statuses
- Amended Three Waters rules THW-R2, THW-R4 and THW-R6 so that these rules apply to the construction of four or more residential units or non-residential buildings in the Oriental Bay Height Precinct
- We specifically note the following out-of-scope recommendations that we have made in regard to Natural and Coastal Hazards:
 - The renaming of Policy CE-P26 to ‘Hard Engineering Natural Hazards Mitigation Works’ and replace reference to ‘hard engineering measures’ with ‘Hard Engineering Natural Hazards Mitigation Works’, as well as a consequential amendment to Rule CE-R24 to align it with the amended definition.
 - Amendments to Policies NH-P3 and NH-P4 where a change from “reduced or not increased” to “minimised” was required over and above those already recommended to be changed.
 - Amendments to Policies NH-P10, NH-P11 relating to fault hazards which have had a comprehensive rewrite: although the submissions received did not clearly request changes made, these changes were a necessary consequence from the whole re-evaluation of the workability of the fault hazard provisions.
 - Amendments to Policy NH-P14 to improve its interpretive and administrative clarity to clarify that mitigation measures are required specifically to buildings to minimise the consequences of fault rupture to people and buildings.
 - Amendments to Policies NH-P18 and NH-P19, and to Rule NH-R2, to replace the term “statutory agency” with listed agencies.
 - Amendment to Policy CE-P11 (as the equivalent policy to NH-P1) to provide for consideration of when an activity has an operational or functional need to locate in a Natural Hazard Overlay.
 - The inclusion of a new Policy CE-P14 to provide the necessary policy direction for Rule CE-R21.

- Amendment to Rule CE-R25 to clarify the rule applies to the construction of buildings or the conversion of existing buildings that will contain a potentially hazard sensitive activity in the high coastal hazard area.

3 NOISE

3.1 Submissions on Noise Provisions

34. The reporting officer for addressing the 550 submission points made on the PDP Noise provisions was Mark Ashby, with input from Malcolm Hunt and Sean Syman, acoustic experts. Additional input was also obtained from Owen Brown in relation to the ventilation standard.
35. In addition to the principal provisions relating to noise, other related elements of the PDP included:
- Appendices 4 and 5 (noise standard tables for specific activities)
 - Inner and Outer Air Noise Overlays, and Air Noise Boundary (noise from aircraft using Wellington Airport)
 - Port Noise Overlay (noise from CentrePort operations)
 - Courtenay Place Noise Area Overlay (managing noise effects on habitable rooms)
 - Temporary Activities chapter (e.g., military training activities, and events at the Stadium and Basin Reserve)
 - Designation chapter (WIAL designation noise conditions), and
 - Subdivision chapter (subdivision of land affected by air noise provisions).
36. The following matters were the key issues in contention in relation to the provisions on Noise:
- Airport noise, in relation to managing reverse sensitivity
 - The relationship between Wellington Airport designation conditions and standards in the Noise chapter
 - Acoustic insulation and ventilation (including in relation to the Airport, Port, railway lines and state highways), and
 - Vibration in relation to railway lines and state highways.
37. A range of submission points on various noise provisions that were evaluated in the Section 42A report were not in contention by the time of the hearing. Where we have not specifically addressed submission points, it is on the basis that these matters were either not in contention at the hearing, or were of a minor nature, and

we therefore adopt the evaluation and recommendations of the reporting officer on the submission points received on these issues.

38. This report is structured in five parts:
- Noise provisions generally
 - Irregular Noise Sources – helicopters, temporary military training, and agricultural aviation activities
 - Airport noise, including reverse sensitivity and acoustic insulation and ventilation
 - Acoustic insulation and ventilation in relation to the Airport, Port, railway lines and state highways, and
 - Noise and vibration along the City’s major transport corridors
39. Minor and inconsequential amendments are addressed at the end of this report.
40. We note submission points on subdivision of land affected by air noise provisions are evaluated in Panel Report 5C – Subdivision.
41. We also note that the hearing received tabled statements from the Oil Companies and MoE accepting the recommendations of the Section 42A Report recommendations in regard to their submission points on the noise provisions.

3.2 Schedule 1 and ISPP provisions

42. For this topic, the following provisions fall under the ISPP:
- NOISE-P6 – Development restrictions on noise sensitive activities
 - NOISE-R3 – Noise sensitive activity in a new building, or in alterations/additions to an existing building
 - NOISE-S4 – Acoustic insulation, high Noise Areas.
43. The remaining noise provisions fell under the Part 1 Schedule 1 process (as set out in paragraph 45 of the Section 42A report).

3.3 Submissions on General Noise Provisions

Definitions

44. As regards the definitions related to noise, the main matter in contention at the hearing was in relation to the terms 'Air Noise Overlay' and 'Air Noise Boundary'. WIAL³⁷ and Guardians of the Bay³⁸ were both concerned that certain aircraft noise definitions and Airport Zone noise provisions are conflated, uncertain and could cause confusion. In addition, the reporting officer identified a number of errors in terminology.
45. To address these concerns the reporting officer recommended:
- a. Separating out the definition of Air Noise Boundary, so that it is independent and does not form part of the Air Noise Overlay definition (wording of the definitions themselves would not be affected); and
 - b. Improve terminology and clarify abbreviations used in the wording of the introduction to the Airport Zone, in addition to correcting a factual error; and
 - c. Deleting Table 21 of APP4 (Permitted Noise Standards) as noise limits for operational aircraft noise are controlled by designation WIAL4.
46. WIAL sought deletion of the defined term 'Air Noise Overlay', to be replaced by a new definition of Air Noise Boundary and 60dB Ldn Noise Boundary (noting Air Noise Boundary is already defined as part of Air Noise Overlay). WIAL also sought to add a new definition, being '60dB Ldn Noise Boundary'.
47. The reporting officer agreed that the purpose and function of the Air Noise Boundary is unrelated to the purpose and function of the Air Noise Overlay, and therefore a change is recommended to the Definitions section of the PDP to clarify the distinctly different functions of the Air Noise Boundary and the Air Noise Overlay, consistent with the approach of NZS 6805:1992 Airport noise management and land use planning. Mr Ashby recommended:
- Deleting the definition of Air Noise Boundary from within the definition of Air Noise Overlay so that it has its own stand-alone definition; and
 - Adding a separate definition of Air Noise Boundary.

³⁷ Submissions #406.27-29 and 406.548

³⁸ Further submission #44.4

48. In response to the planning evidence on behalf of WIAL, the reporting officer noted that Ms O'Sullivan for WIAL proposed that High and Moderate Noise Areas should be defined via new definitions. Currently, those terms are effectively 'defined' within the body of NOISE-R3. The reporting officer agreed with Ms O'Sullivan that new definitions would be more effective and efficient, as it would improve readability of rules and standards. Being an ePlan, access to definitions used in rules and standards is only one click away.
49. His recommended wording of these new definitions was set out in a revised version of Appendix A, relocating the description of High and Moderate Noise Areas from within NOISE-R3 to the Definitions section. With the definitions established, they can be used as 'shorthand' in various provisions where the component areas of High and Moderate are otherwise separately referenced. The affected provisions include NOISE-P3, NOISE-P4, NOISE-P6, NOISE-R3, NOISE-S4 and NOISE-S5.
50. Mr Ashby's approach differed from Ms O'Sullivan's approach to the new definitions of High and Moderate Noise Areas. She proposed deleting reference to the air noise overlays. On the advice of the Council's noise experts, he disagreed with that outcome, as the Inner and Outer air noise overlays are appropriately characterised as High and Moderate Noise Areas respectively. Mr Ashby stated that the efficient and effective administration of the Plan, for both Council and users, is aided by taking a common approach to the major sources of noise.
51. We agree with the reporting officer that his recommended amendments are appropriate.

Objectives

52. Noise objective NOISE-O1 was supported by Kāinga Ora³⁹, but this submitter sought amendments to "articulate the balance more clearly between providing for noise generating activities, whilst appropriately managing effects on the community". While agreeing with the submitter's intent, the reporting officer did not see any extra value in the submitter's rewording.
53. Kāinga Ora opposed NOISE-O2 on the basis that noise generating activities should not compromise people's health and wellbeing. The reporting officer responded that where a high noise producing activity already exists, and is authorised, then the

³⁹ Submission #391.286-287

establishment of new noise sensitive activities should be carefully managed. The intent of the two noise objectives is to protect the health and wellbeing of people, while protecting the interests of legitimate noise producing activities. He considered the objectives worded as notified achieved this balance, and he therefore recommended rejecting Kāinga Ora's submission on this point.

54. We agree with the reporting officer and consider the two objectives as notified provide an appropriate balance, although we also agree that the wording of NOISE-O1 could be better expressed as recommended by the reporting officer.
55. FENZ sought a new objective to support its future needs to be able to be located anywhere in the urban or rural environment⁴⁰. In the absence of further information on noise effects, and given that the submitter stated that most fire stations can generally comply with NZS 6802: 2008, the reporting officer did not consider that such an objective was appropriate. No evidence from FENZ was provided to the hearing on this point.
56. We agree with the reporting officer that no additional objective is warranted in respect of FENZ's submission.
57. WIAL sought two new objectives specific to protecting the Airport from reverse sensitivity, and to manage the effects of Airport noise⁴¹. This was not supported by the reporting officer who considered the two notified objectives strike an appropriate balance, and address both reverse sensitivity and the management of noise emissions generally, including those from the Airport.
58. We agree, and conclude that no additional objectives specific to the Airport are necessary as the two notified objectives appropriately address the concerns of WIAL.

Policies

59. WIAL proposed two new policies (which WIAL called NOISE-P7 and NOISE-P8) specific to managing noise sensitive activities within the Inner and Outer Air Noise Overlays to protect against reverse sensitivity effects. The two proposed policies sought to discourage or avoid the establishment or intensification of noise sensitive activities (P7); and require insulation and mechanical ventilation in new or altered

⁴⁰ Submission #273.157

⁴¹ Submission #406.409-410

buildings containing noise sensitive activities (P8). WIAL also wanted the reference to Air Noise Overlay deleted from policy NOISE-P6.

60. The reporting officer considered that the other changes he had recommended be made to the Noise provisions would make the new policies largely unnecessary. Those other recommended changes include:
- Amending the headline text of NOISE-P4 to be “*protection of noise sensitive activities by acoustic treatment of buildings and provision of alternative ventilation*” (the headline change would also respond to the reporting officer’s recommendations on ventilation).
 - Amending the Air Noise Overlay reference in P4 to clarify that it applies to both the inner and outer air noise overlays (the reporting officer noted that he has also recommended changes to the definition of air noise overlay to provide greater clarity).
 - Extensive changes to Standard NOISE-S6 (ventilation requirements) to work in parallel with standards NOISE-S4 and NOIS-S5 in relation to insulation.
 - Amendments to the definition of Air Noise Overlay/Air Noise Boundary.
61. The reporting officer did agree with WIAL that policy NOISE-P6 should not be specific to the Inner Air Noise Overlay, but recommended that NOISE-P6 separately refer to restricting noise sensitive development in High and Moderate Noise Areas; and where buildings housing noise sensitive activities in high and moderate Noise Areas do not meet ventilation and acoustic insulation standards.
62. The reporting officer clarified that the PDP did not seek to unduly restrict urban development in areas affected by airport noise, but the rules did seek to limit the intensity of further development in these areas.
63. We agree with the reporting officer’s reasoning, and conclude that the additional policies sought by WIAL are not required, as we concur that the other changes would achieve the intent of WIAL’s proposed policies. We also agree that the reference to the Inner Air Noise Overlay in policy NOISE-P6 should be deleted.
64. Kāinga Ora⁴² sought an amendment to NOISE-P1 to recognise that amenity values change over time, and therefore the policy should not require them to be maintained. The reporting officer disagreed, considering the policy is an enabling

⁴² Submissions #391.289-290

one, with the noise standards setting appropriate levels according to the different environments within the City establishing to acceptable levels of amenity. We agree, and consider maintaining acceptable noise levels appropriate to different environments is an important purpose of District Plans generally.

65. WIAL sought an amendment to policy NOISE-P1 so that it only applies to land-based noise from the Airport⁴³. The reporting officer recommended rejecting this submission, as NOISE-P1 is intended to have general effect (as outlined above), regardless of the noise source. We agree, and recommend rejecting this submission point.
66. In relation to Policy NOISE-P3, which enables the generation of higher noise levels in specified locations, Kāinga Ora sought to amend the wording which it considered to be overly ambiguous⁴⁴. However, the reporting officer considered the relief sought by Kāinga Ora to be unclear as NOISE-P3 provides the basis for the generation of higher noise levels in specific locations. He noted that the policy is given effect to via Rules NOISE-R3.1 (High Noise Areas) and NOISE-R3.2 (Moderate Noise Areas) and the respective noise standards. We agree and consider that this policy is clear in its intention and application.
67. Policy NOISE-P4 relates to the protection of noise sensitive activities in other listed locations, with the type of protection being the acoustic treatment of buildings. To improve clarity, the reporting officer recommended adding text to explain that this policy applies to High Noise Areas and Moderate Noise Areas, and also the specific Centres zones to which the policy applies, as well as the Courtenay Place Noise Area and the General Industrial Zone.
68. In response to submissions from Yvonne Weeber, SPRA, and Guardians of the Bay⁴⁵, the reporting officer recommended amending the reference to Air Noise Overlay to Outer Noise Overlay and Inner Noise Overlay to align with the PDP definitions.
69. We agree with the recommended clarifications to this Policy.
70. The Oil Companies requested an amendment to NOISE-P4 so that it applies to new noise sensitive activities that share a boundary with specified zones and overlays,

⁴³ Submissions #406.418-420

⁴⁴ Submissions #391.292-293

⁴⁵ Submissions #340.81, 371.2 and 452.37 respectively

to ensure adequate acoustic treatment and minimise reverse sensitivity effects⁴⁶. The amendment sought by the Oil Companies would add the words “*or on a site which shares a common boundary with.*” However, the reporting officer did not consider this was an appropriate amendment as permitted activity noise levels within zones must be met within adjacent sites, so adding those words would not provide any further clarity.

71. Kāinga Ora sought an amendment to NOISE-P4 so that it would apply only to the City Centre, Waterfront, and Centres Zones, and that the policy should be to ‘encourage and promote’ rather than ‘require’⁴⁷. In response, the reporting officer recommended rejecting this submission, as he considered it essential that NOISE-P4 apply to noise sensitive activities in all High Noise and Moderate Noise Areas. He also considered it essential that acoustic insulation and mechanical ventilation is a *requirement* for new noise sensitive activities locating within high and moderate Noise Areas.
72. MoE sought to exclude educational facilities from Policy NOISE-P4 as these buildings have their own specific acoustic treatments⁴⁸. The reporting officer recommended rejecting this submission as such facilities are noise sensitive activities, and the policy of requiring sound insulation in High or Moderate Noise Areas should apply.
73. WIAL sought to either delete Policy NOISE-P4 entirely, or amend it to clarify that it is the buildings containing noise sensitive activities that require acoustic treatment rather than the activities themselves⁴⁹. The reporting officer concurred, and recommended amending the title and chapeau to the Policy to make this clarification.
74. KiwiRail sought to amend policy NOISE-P4 to include vibration effects from the rail network, which it considered also affect the internal amenity of buildings⁵⁰. In response, the reporting officer recommended rejecting this submission as compliance with rail vibration levels (if they were to be included within the Plan) should be achieved by a vibration level limit, not by prescribed vibration treatment/vibration insulation requirements as sought by KiwiRail. Further, he

⁴⁶ Submission # 372.101-102

⁴⁷ Submission #391.294-295

⁴⁸ Submission # 400.81

⁴⁹ Submissions # 406.423-425

⁵⁰ Submission #408.108

advised that if a rail vibration were to be included in the Plan, he would recommend separate provisions, as vibration must be assessed differently to noise (we address the issue of rail vibration further in 3.7 of this report).

75. In relation to policy NOISE-P6, which imposes development restrictions on noise sensitive activities, Kāinga Ora sought to prevent noise sensitive activities being developed in the Inner Air Noise Overlay if ventilation and acoustic insulation standards are not met⁵¹. The reporting officer accepted this submitter's point but recommended alternative changes to the policy wording, as outlined above in paragraph 61.
76. For the reasons provided, we agree with and support the reporting officer's recommendations in relation to the submissions on the Noise policies, and the subsequent amendments to the noise policies.

Rules

77. Most submissions on the noise rules were in relation to either airport noise or to noise along the major transport corridors, which we have evaluated in separate sections to this report. Here, we evaluate other submissions on the noise rules.
78. Kāinga Ora opposed all rules in the Noise Chapter and sought an amendment so that all Restricted Discretionary Activity rules in the Noise Chapter have a notification preclusion statement, as the technical nature of the breaches means that public or limited notification will not add anything to the consideration of the effects of these breaches⁵². This was opposed by WIAL, NZDF, and KiwiRail, with the latter submitter considering it necessary for KiwiRail to be notified of activities that cannot comply with noise provisions when located near the rail corridor⁵³. The reporting officer recommended rejecting the submission, stating that the suggested approach is contrary both to NZ Standards and to established noise management methods. We note that none of the noise rules have notification clauses, except for Rule NOISE-R13.3, for non-compliance with the standard for Engine Testing, which is a Non-Complying Activity, and in respect of which, an application for resource consent must be publicly notified. Resource consent applications made under the other rules would be subject to the notification tests under Sections 95-95E RMA.

⁵¹ Submissions #391.296-297

⁵² Submissions #391.284-285

⁵³ Further submissions #36.149, 104.14-15, 72.66 respectively

79. While we do have sympathy for Kāinga Ora’s submission point, given that non-compliance with acoustic or ventilation requirements is typically a technical matter, we consider an open notification status is appropriate, given the wide variety of situations and contexts in the various parts of the City to which the Noise rules apply. In particular, we agree with KiwiRail that non-compliance with noise standards in relation to proximity to a source of significant noise emissions such as a major transport corridor may need the involvement of that infrastructure owner through the notification process.
80. In relation to helicopters, Paul van Houtte sought to make helicopter landing noise at the waterfront a Permitted Activity, a submission opposed by Wellington Helicopters⁵⁴. Helicopters in the waterfront area operate from the Outer “T” of Queens Wharf. We were advised that the City Council has no jurisdiction to control helicopters landing on the wharf as this area is over coastal water, and is therefore subject to control under the Regional Coastal Plan (**RCP**).
81. Yvonne Weeber and GOTB requested helicopter take-off and landing within the East Side Area Airport Designation be prohibited, or be made a Non-Complying Activity⁵⁵. The reporting officer advised that this was unnecessary as East Side Area designation condition 34 specifies that: *“there shall be no aircraft engine testing, take-off or landing on land within the ESA Designation”*⁵⁶.
82. FENZ sought a new rule that permits noise from Emergency Services Facilities and Temporary Emergency Services Training Activities in all zones where compliance is achieved with certain standards⁵⁷. This was recommended to be rejected by the reporting officer in the absence of further information that this is an issue.
83. Save Our Venues⁵⁸, a national advocacy organisation for live music venues, sought to have the Plan recognise that noise sensitive activities near a live music venue should be subject to a requirement for higher level of acoustic mitigation (that is, insulation). Save Our Venues sought either specific provision for live music venues in Rule NOISE-R3, or the creation of Special Entertainment Precincts, citing the Courtenay Place Noise Area (**CPNA**) as an example that could be extended

⁵⁴ Submission #92.2, Further submission #5.5 respectively

⁵⁵ Submissions #340.86, 452.31 respectively

⁵⁶ Standard NOISE-S10 also prevents engine testing in the East Side precinct.

⁵⁷ Submission #273.160

⁵⁸ Submission #445.5-8

elsewhere. The CPNA is an overlay under both the ODP and PDP within which higher sound insulation rules apply for new noise sensitive activities.

84. In response, the reporting officer first noted that the CPNA does not imply that noise emissions can be higher in this area than elsewhere in the City Centre. He also advised that data collected by the Council between 2000 and 2017 showed that, since the introduction of sound insulation requirements throughout the Central Area (including the CPNA), noise complaints about entertainment venues had decreased, while the number of entertainment venues stayed steady during that period. In 2017, 85% of complaints against entertainment venues were from dwellings that did not meet the insulation standards in the ODP.
85. The reporting officer considered the creation of a new Entertainment Precinct or the expansion of the CPNA had some merit, but he could make no recommendation as no detail on where such a precinct might be located had been provided by the submitter.
86. The submitter did not make a presentation to the hearing, nor tabled any information. In the absence of such information, we can take this matter no further, and accordingly recommend no changes be made to the PDP.
87. As regards the submission from WIAL to either delete or amend Rule NOISE-R8 to avoid inadvertently capturing wildlife management activities at the Airport in relation to “*shooting range and firearm noise*”, the reporting officer agreed this should be exempt and recommended providing additional wording in NOISE-R8 for to make “*shooting for the purposes of wildlife management in respect of aircraft safety*” permitted in the Airport and General Rural Zones.

Standards

88. Submissions on the noise standards were in relation to either airport noise or to noise along the major transport corridors, which we have evaluated in separate sections to this report.

Appendices

89. Appendix 4 (APP4) to the Noise Chapter sets out multiple tables of permitted activity noise standards. The tables in Appendix 4 relate to the permitted noise levels (from any source activity) as received in specified zones, when emitted from within another specific zone.

90. The submission from Woolworths sought to amend this Appendix to improve its clarity⁵⁹. The reporting officer agreed that there are substantial clarity issues that need to be addressed. Some of the issues he identified were:
- Missing zones from the lists
 - Double referencing of “*commercial and mixed use zones*” and “*mixed use zone*”
 - No reference to Courtenay Place Noise Area, and
 - Reference to “*Map 35*” for the Air Noise Boundary (hard copy maps no longer exist).
91. Further, as these tables cover noise emitted from specific source zones to specific receiver zones, the reporting officer advised that there are many use cases that are not shown, and for which a noise limit is not provided.
92. Due to the matters described above, we were advised that there is significant potential for misunderstanding, and a general lack of clarity, both for users of the plan (including their expert acoustic consultants) and for the Council in terms of compliance management. The reporting officer recommended that many of the exclusions, mis-naming and other errors could be corrected as Clause 16 minor or inconsequential changes.
93. There were several specific submissions seeking changes to Appendices 4 and 5.
94. WIAL sought the deletion of APP4 Table 21⁶⁰. The reporting officer agreed with the submitter that including this table is duplicative of WIAL’s designation, and recommended deleting NOISE-S9 for the same reason. APP4 Table 21 also incorrectly refers to an “*Outer Noise Control Boundary*” which does not exist.
95. CentrePort sought amendments in relation to APP4 Table 20 to comply with the methodology in NZS 6809:1999 (Port Noise Standard)⁶¹, which the reporting officer agreed were required.
96. Council sought amendment of APP4 Table 19 to increase the Permitted Activity noise limits within the Open Space/Sport and Active Recreation zones, specifically

⁵⁹ Submission #359.94

⁶⁰ Submission #406.548

⁶¹ Submissions #402.136-37, 402.212

to address removing unnecessary noise restrictions on sport on Sundays⁶². The reporting officer recommended that the lower Sunday noise limits be increased.

97. For the reasons provided, we agree with and support the reporting officer's recommendations in relation to the submissions on the Noise rules, and the subsequent amendments to the two Noise Appendices, Appendices 4 and 5. In particular, the noise standards are intended to be district-wide and thus the omission of some zones would lack to a significant lack of clarity. These recommendations included a earthworks definition for 'fixed plant' to clarify the application of Appendix APP5 – Fixed Plant Noise Standards.

3.4 Irregular Noise Sources

Helicopter Activities at Wellington Regional Hospital

98. Steven Dunn sought that there be enforceable noise limits on aircraft idling on the rooftop of the regional hospital in Newtown⁶³.
99. The reporting officer advised that in the Special Purpose Hospital Zone, hospital activities are a permitted activity, the definition of which includes helicopter facilities including helicopter take-off, landing and associated service facilities. Given the emergency, life-saving purpose of these helicopter activities, the reporting officer did not consider imposing limits would be workable. Furthermore, the reporting officer advised that one of the general exemptions from the Noise rules and standards is aircraft used in emergencies or as air ambulances.
100. While he did not support imposing enforceable limits on helicopter activities at the hospital, Mr Ashby did recommend amending the Planning maps to show a 500m radius Heli Noise Effects Advisory Overlay, to signal the presence of occasional helicopter noise, supported by an explanatory note to be added to NOISE-R4.1 (Helicopter Landing Noise in the Hospital Zone).
101. We agree with the reporting officer that it would be inappropriate to impose noise limits on the helicopter activities at the Hospital, and that an advisory overlay should be incorporated into the planning maps as recommended.

⁶² Submissions #266.171-172

⁶³ Submission #288.13-14

Temporary Military Training Exercises

102. NZDF has developed bespoke noise standards with respect to temporary military training activities (TMTA), which NZDF sought to have included in every district plan through the country⁶⁴. The standards have been specifically developed by NZDF to manage the particular noise characteristics of TMTA. The standards provide controls intended to manage noise effects from TMTA, as well as having a standard practice of informing affected landowners and occupiers of properties.
103. The Council's acoustic expert, Mr Syman, thoroughly addressed this submission through his evidence. In summary, Mr Syman's recommendations were as follows:
- a. TMTA should be able to occur on a Sunday, provided that appropriate noise standards for TMTA are met.
 - b. The requirement for TMTA notice to the public should reside in TEMP-S6 and not be placed in APP6.
 - c. The relevant noise limits for mobile noise sources when TMTA takes place for more than 14 days should be reduced by 5 dB, as these limits are based on the limits for construction activities in NZS 6803:1999, which has reduced noise limits for activities longer than 14 days.
 - d. Distinct noise limits should be set out in the TEMP chapter table displaying mobile noise limits for TMTA, based on the duration of activities.
 - e. Fixed (stationary) noise sources proposed by NZDF are appropriate and align with the PDP, with the exception of the addition of a 50 dB LAeq "evening" noise limit from 1900 to 2200 hours, which is more restrictive.
 - f. Noise measurement, assessment criteria and the recommended limits provided in Table 1 of NZS 6807:1994 are appropriate for TMTA Helicopter Landing Pad activity.
 - g. The land use planning section of NZS 6807:1994 should not be applicable for TMTA, as it is inappropriate to establish a helicopter noise boundary for a temporary activity.
104. With respect to the setback distances for TMTA weapon firing, Mr Syman did not support the use of the submitted setback distances as he did not consider there

⁶⁴ Submissions #423.45-46

was sufficient evidence to support the metrics. In relation to the TMTA Mobile noise limits, while Mr Syman supported the proposed direction around how noise should be measured, he noted that there is not a corresponding direction for the assessment of the noise, and that no evidence had been provided to support the proposal that no adjustment should be made for duration or special audible character for TMTA Mobile noise levels. He recommended that TMTA noise from mobile and fixed plant sources should be assessed in accordance with New Zealand Standard 6802:2008 Acoustics - Environmental Noise which would include provision for duration and special audible characteristic adjustments as applicable.

105. Mr Darren Humpheson appeared before the hearing as an acoustic expert for NZDF, together with Ms Rebecca Davies, a planner at the NZDF. Through her evidence, Ms Davies provided a helpful background to TMTA, and advised that the NZDF's approach to noise management is to use appropriate setback distances. Under this approach, the Council's compliance officer would simply have to measure the distance between the site of the activity and any particular site, using either a paper map or internet based tools such as the Council's own GIS.
106. In relation to the details of the provisions managing noise from TMTA, there was a large measure of agreement between Messrs Humpheson and Syman, with Mr Humpheson supplying additional information sought by Mr Syman. In his response to Mr Humpheson's evidence, Mr Syman generally agreed with Humpheson's recommended amendments, except in regard to whether the noise limits for TMTA of between 14 and 31 days should apply to all mobile sources for all TMTA durations. At the hearing, Mr Humpheson agreed with Mr Syman, and the two experts prepared a marked-up version of the table setting out the mobile noise limits for activities sensitive to noise.
107. Following the hearing, the Council and NZDF are in general agreement on the technical noise matters with only a few outlying matters⁶⁵. Mr Ashby presented the agreed changes to the table on mobile noise limits for activities sensitive to noise. The one outstanding matter was in relation to the table of noise limits for Mobile Noise limits for noise affecting any other activity. Contrary to Mr Humpheson, Mr Syman considered that higher duration activities should have more restrictive noise limits. We agree with Mr Syman that the longer the duration of TMTA, the less acceptable the higher level of noise would be.

⁶⁵ Mark Ashby evidence in reply, paragraph 51.

108. Given the high level of alignment between the NZDF and the Council, we agree with and support the reporting officer's final recommendations in relation to the submissions on the provisions for TMTA, and the subsequent amendments to the PDP provisions. As the amendments to the Temporary Military Training Activity noise provisions relate to the Temporary Activities chapter, the changes will be included in the recommendations on the Temporary Activities chapter that will be addressed in Hearing Stream 7⁶⁶.

Agricultural Aviation Activities

109. In relation to agricultural aviation activities, the reporting officer considered there was no need for new rules to permit these activities as sought by NZ Agricultural Aviation Association (NZAAA), as they are captured by the general exemptions⁶⁷, specifically:

1. *Aircraft being operated above 1,000 feet (305m) over built up areas or above 500 feet (152m) over rural areas ...*
7. *Rural activities, including agricultural vehicles, machinery or equipment used on a seasonal or intermittent basis in the Rural Zone*

110. At the hearing, the representative for NZ Agricultural Aviation, Lynette Wharfe, expressed concern that the Noise Chapter does "not clearly and adequately provide for use of agricultural aviation aircraft undertaking activities in the General Rural Zone, Natural Open Space Zone and Open Space Zone"⁶⁸. She noted agricultural aviation activities often operate at less than 500 feet, and that it is not clear that aircraft would be interpreted as 'agricultural vehicles, machinery or equipment'. She proposed a separate definition of 'agricultural aviation' and sought making it a permitted activity.

111. In response, through his supplementary evidence, the reporting officer supported the inclusion of the NZAAA's suggested definition of 'agricultural aviation', but did not support a 'carte blanche' exemption, noting that "*Outside of the General Rural Zone, noise and other effects associated with aviation activities in open space and reserve areas are a valid concern for the public – and for the Council with respect to complaints that may arise*"⁶⁹.

⁶⁶ Note that Appendix 6 Permitted Noise Standards for Temporary Activities is not an ISPP matter.

⁶⁷ Submissions #40.5-7

⁶⁸ Evidence of Lynette Wharfe on behalf of the NZ Agricultural Aviation Association, paragraph 2.1

⁶⁹ At paragraph 16

112. He recommended accepting the definition of 'agricultural aviation' and adding noise from this activity as a Permitted Activity in the Noise chapter, subject to compliance with the AIRCARE Code of Practice in relation to noise abatement⁷⁰.
113. In evaluating this matter, we agree with the submitter there is a need to improve the clarity around aviation activities related to agriculture and conservation purposes. However, we were not satisfied that the most appropriate approach is to provide for these activities as Permitted, subject to compliance with the AIRCARE Code of Practice as recommended by the reporting officer. That document is clearly intended to support a training programme, and is more of a guide to good practice, rather than a set of specifications or requirements that have sufficient clarity and objectivity to meet the standards required for Permitted Activity standards.
114. More importantly, given that these activities occur very infrequently, and usually in areas of little or no population, we were doubtful that these activities would promulgate problems. Certainly, no evidence of any complaints or issues was provided to the hearing. We have come to the conclusion that the most appropriate approach is to specifically exempt these activities from the noise rules and standards, as this would align with the exemption for rural activities.
115. To clarify the exemption relates to such aircraft only operating in the City's rural areas we recommended adding that their activities are over a rural or natural open space zone to the definition.
116. Thus we recommend adding the following definition to the Plan:
- Agricultural Aviation Activity*** means the intermittent operation of an aircraft over a rural or natural open space zone using a rural airstrip or helicopter landing area for primary production activities; conservation activities for biosecurity, or biodiversity purposes (including stock management); and the application of fertiliser, agrichemicals, or vertebrate toxic agents (VTAs). Aircraft includes fixed-wing aeroplanes, helicopters, and unmanned aerial vehicles (UAVs).
117. We further recommend adding this activity as a ninth exemption to the list of exemptions at the beginning of the Noise chapter.

⁷⁰ <https://www.aviationnz.co.nz/site/aianz/files/Aircare/NOISE%20Abatement%20CoP%20Edition%201.pdf>

3.5 Airport Noise

The PDP Airport Noise Management Framework

118. Wellington International Airport is a major generator of noise in the City, and operates within a highly developed urban environment that is facing ongoing pressure for further intensification. The overarching Airport noise management framework in the PDP was carried through from the ODP, but with some key differences.
119. The Airport itself operates in accordance with a number of designations, including an airspace one. These designations will be subject to a separate hearing in 2024, as will the provisions of the Airport Zone. The designation conditions include ones that relate to noise management at the Airport. The PDP replicated these conditions as standards, intended to address third party non-compliance issues.
120. Noise emissions from aircraft operations at the Airport are managed by the *Air Noise Boundary* (ANB), a line shown on the district plan maps which is based on the predicted day/night sound level of 65dB Ldn from future aircraft operations at Wellington Airport. The function of the ANB is to ensure aircraft noise levels do not exceed 65 dBA Ldn on any site beyond the ANB. As per NZS6805:1992, aircraft noise levels above 65 dBA Ldn are only found within the ANB.
121. The *Air Noise Overlay* is an area defined by the planning maps to show land subject to development restrictions, due to potential noise effects from Wellington International Airport. The Air Noise Overlay comprises two overlays:
- *Inner Air Noise Overlay* – being properties lying between the Airport and a modelled 65 dBA contour, fitted to property boundaries.
 - *Outer Air Noise Overlay* – being properties lying between the 65 dBA contour and a modelled 60 dBA contour, fitted to property boundaries.
122. The outer extent of the Air Noise Boundary corresponds with the outer extent of the Inner Noise Overlay, the modelled 65 dBA contour.
123. We note that the outer boundary of the Outer Air Noise Overlay was changed from the modelled 55 dBA in the ODP, to 60 dBA. The reason for this change was that the:

Extension of mitigation measures out to Ldn 55 dBA is not considered warranted. At levels of received aircraft noise below Ldn 60 dB, modern thermally efficient building designs coupled with appropriate building

*materials such as double glazing will allow indoor aircraft noise levels to be maintained to within acceptable levels without any specific acoustic requirements.*⁷¹

124. One of the main differences from the ODP is that the PDP sought to apply a consistent management framework to managing noise sensitive activities in areas identified as *High Noise Areas* and *Moderate Noise Areas* across the City. The Inner Air Noise Overlay is classified as a High Noise Area, and the Outer Air Noise Overlay as a Moderate Noise Area.
125. The PDP standardised the requirements for acoustic insulation applying to the Inner Air Noise Overlay and Outer Air Noise Overlay with the insulation requirements of NOISE-S4 and NOISE-S5 which apply to all buildings for noise sensitive activities within all the above listed zones and areas. This was an important change from the ODP.
126. Another important change was in the approach used in the standards requiring acoustic treatment of buildings. The PDP approach for specifying minimum acoustic insulation standards for habitable rooms uses the “Standardised Level Difference” method which adopts the metric $D_{tr,2m,nT,w} + C_{tr}$ as defined within ISO 717-1:2020 *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation*. This approach is already adopted within the ODP (and within many other district plans in New Zealand) where acoustic insulation is required within new or altered habitable rooms located within port noise affected areas, the Central City, and Centres in Wellington⁷².

WIAL’s Quieter Homes Initiative

127. There are also a number of other elements to the Airport noise management framework about which Ms Jo Lester, the Airport Planning Manager at Wellington International Airport, helpfully provided further details. She also provided background to the current noise management framework for the Airport under the ODP⁷³.
128. An important matter to take into account is WIAL’s *Quieter Homes Initiative*. Under this programme, WIAL offers homeowners within the Air Noise Boundary a subsidised package of acoustic mitigation treatment. We were advised by Ms

⁷¹ Section 32 Evaluation Report: Noise, at pages 20-21

⁷² Evidence of Malcolm Hunt, at paragraph 56

⁷³ Evidence of Jo Lester, for WIAL

Lester that, to date, the Quieter Homes Programme has spent more than \$11 million and supported more than 100 homeowners⁷⁴.

129. The tailored treatments are designed to reduce aircraft noise in habitable rooms to a day/night average (Ldn) of 45 dB. Either a 100% or a 75% subsidy of the cost is provided, depending on the degree of aircraft noise experienced. The Airport designation conditions require that *“the Requiring Authority shall offer to fund noise mitigation for all existing residential properties within the Air Noise Boundary in accordance with the Quieter Homes Programme”*⁷⁵.
130. While this initiative is not a district plan requirement, a key reason for WIAL seeking to retain the ODP approach for measuring aircraft noise in habitable rooms in the PDP noise insulation standards is to align these standards with the approach used in the Airport’s Quieter Homes Initiative.

Principal Issues in Contention

131. The submission from WIAL sought a wide range of amendments, additions, and deletions, as did the submission from Kāinga Ora⁷⁶. In addition, there were a number of other submissions on Airport noise matters, including submissions from GOTB and Yvonne Weeber⁷⁷.
132. In essence, the submission from WIAL sought to tighten up development controls on land uses in the vicinity of the Airport, and to apply a different method of acoustic insulation of buildings used by noise sensitive activities in the Air Noise Overlays. Kāinga Ora generally sought to enable a greater level of intensification in the vicinity of the Airport.
133. By the time of the hearing, however, a large degree of alignment of position was reached between the Council’s advisers, and those for WIAL and Kāinga Ora. For this reason, we focus only on the principal matters still in contention at the time the hearing finished.
134. The principal issues in contention were in regard to:
- The level of intensification of noise sensitive activities, particularly residential, that should be enabled in the Outer and Inner Air Noise Overlays;

⁷⁴ Evidence of Jo Lester for WIAL, at paragraph 5.33

⁷⁵ Section 32 Evaluation Report: Noise, at page 21

⁷⁶ Submissions #406 and #391 respectively

⁷⁷ Submissions #452 and #340 respectively

- Airport noise standards versus airport designation conditions; and
- Acoustic treatment and ventilation requirements for buildings used by noise sensitive activities in the Inner and Outer Air Noise Overlays.

135. The latter issue, we address separately to the Airport noise provisions, as it overlaps with more broad submissions on the nature of the proposed acoustic treatment and ventilation requirements, in particular, on the requirements for noise sensitive activities close to major transport corridors.

Level of Intensification of Noise Sensitive Activities

136. One of the critical differences between the approach by the City Council advisers and that of the Airport advisers was in the application of the New Zealand Standard for Airport Noise Management and Land Use Planning, NZS6805:1992 (NZS6805). WIAL contended that this Standard is generally considered “*best practice*” for land use management surrounding airports in New Zealand and promotes an approach whereby all new noise sensitive activities within an airport’s Air Noise Boundary and Outer Control Boundary are prohibited, where this can be practicably achieved.

137. Ms O’Sullivan, who gave planning evidence for WIAL, stated that NZS6805 recommends:

- Within areas receiving greater than 55dB Ldn of aircraft noise: New residential, schools, hospital or other noise sensitive uses should be prohibited unless a district plan permits such uses, subject to a requirement to incorporate appropriate acoustic insulation to ensure a satisfactory internal noise environment.
- Within areas exposed to greater than 65dB Ldn of aircraft noise: New residential schools, hospital or other noise sensitive uses are prohibited and existing residential properties are provided with appropriate acoustic insulation to ensure a satisfactory internal noise environment.
- Within areas exposed to greater than 70dB Ldn of aircraft noise: Consideration should be given to purchasing existing homes, or relocating residents, and rezoning the area to non-residential use only.

- Within areas receiving greater than 75dB Ldn of aircraft noise: Land shall not be used for residential or other noise sensitive uses⁷⁸.
138. Ms O'Sullivan noted that the National Planning Standards require any plan rule to manage noise emissions must be in accordance with the mandatory noise measurement methods set out in NZS6805.3⁷⁹.
139. In response, the reporting officer, Mr Ashby, disagreed that NZS6805 prescribes an approach to land use planning that should be followed in all circumstances. He stated that the National Planning Standards only prescribe the use of NZS6805 in relation to the measurement of noise, which is contained in Parts 2 and 3 of that Standard. The land use control measures in Part 1 of the Standard are not mandated by the National Planning Standards.
140. Mr Ashby also noted that, although the control measures in those Tables are listed as "*recommended*", the language of Table 1 also purports to "*prohibit*" new residential, schools, hospitals, or other noise sensitive activities within the Air Noise Boundary (i.e., within the Inner Air Noise Overlay of the PDP). He considered that Ms O'Sullivan acknowledged that prohibition "*is not a tenable nor sustainable outcome when considered in the context of the way land has been developed around Wellington Airport. Instead, a more nuanced approach is required*"⁸⁰.
141. Mr Ashby further noted that, within an outer control boundary (analogous to the PDP Outer Air Noise Overlay), Table 2 also purports to prohibit the same activities "*unless a district plan permits such uses, subject to a requirement to incorporate appropriate acoustic insulation to ensure a satisfactory internal noise environment*".
142. Bal Matheson, Counsel for Kāinga Ora, reminded the Panel that NZ Standards (such as NZ6805) are not binding on plan making processes, and do not override other higher order instruments that are mandatory (such as the RPS and NPSUD, to which effect must be given by the PDP). We note also his submission that, "*despite the acousticians saying that NZS6805 is still "fit for purpose", it is now more than 30 years old and its nontechnical commentary does not reflect today's more*

⁷⁸ At paragraph 5.11 of Ms O'Sullivan's evidence

⁷⁹ At paragraph 5.12

⁸⁰ Paragraph 5.26, EIC of Kirsty O'Sullivan for WIAL, cited in paragraph 17 of Mr Ashby's supplementary evidence.

*complex planning frameworks and competing considerations within urban settings*⁸¹.

143. We agree that the recommended land use controls in NZS6805 are a guide, and not mandatory. It is also clear that, in many aspects, its recommended land use management approach is more tuned to greenfield situations rather than the built-up urban environment surrounding much of Wellington Airport, where serviced urban land is at a premium for intensification. The reference in NZS6805 to a District Plan being able to permit such uses, subject to a requirement to incorporate appropriate acoustic insulation to ensure a satisfactory internal noise environment, signals that District Plans might appropriately take a more nuanced approach using acoustic treatment methods.
144. Ultimately, there appeared a large measure of agreement between WIAL’s and the Council’s planning advisers about the appropriate levels of residential development enabled by the PDP in those parts of the residential zones within the Inner and Outer Air Noise Overlays. Mr Ashby produced the following table to demonstrate that the PDP is actually slightly more permissive within the Outer Air Noise Overlay⁸².

	Operative District Plan					Proposed District Plan			
	Within the ANB		Beyond the ANB			Inner Airnoise		Outer Airnoise	
	<i>Rule</i>	<i>Dwellings</i>	<i>Rule</i>	<i>Dwellings</i>		<i>Rule</i>	<i>Dwellings</i>	<i>Rule</i>	<i>Dwellings</i>
Permitted	5.1.7	1	5.1.7	2	Permitted	R3.1	1	R3.2	3
RDA ³	5.3.10B	2	5.3.7	3+	RDA	R3.3a	2	R3.3b	4+
Discretionary	5.4.4	3+			Discretionary	R3.4	3+		

145. Mr Ashby also noted that, in permitting up to 3 dwellings within Moderate Noise Areas (which includes the Outer Air Noise Overlay), the approach taken in the PDP is consistent with the Medium Density Residential Standards.
146. We concur with Mr Ashby, and consider the recommended level of development for noise sensitive activities is an appropriate reconciliation between competing tensions, particularly between the NPSUD policies to enable greater housing intensification, and the need to address the reverse sensitivity and health effects of airport noise on residential activities.

⁸¹ Legal Submission for Kāinga Ora on Noise, paragraph 3.2(f)

⁸² Supplementary Statement of planning evidence of Mark Ashby, at paragraph 23

147. In relation to noise sensitive activities within the non-residential zones near the Airport, Mr Ashby agreed with Ms O'Sullivan that this is a matter that required further evaluation. In his opinion, the outcomes should be no more restrictive than under the ODP, except within the Inner Air Noise Overlay – where the Council has identified noise as a qualifying matter.
148. Following his evaluation of the non-residential zones within the Inner Air Noise Overlay, Mr Ashby identified the following:
- a. Dwellings and noise sensitive activities are Discretionary Activities in the GIZ, which occurs within both the Inner and Outer Air Noise Overlays;
 - b. Dwellings and noise sensitive activities are Permitted Activities in the NCZ, a small part of which is located within the Inner Air Noise Overlay, and somewhat more in the Outer Air Noise Overlay (both in Miramar South); and
 - c. Dwellings and noise sensitive activities are Restricted Discretionary Activities.
149. In response to his evaluation, Mr Ashby recommended accepting the relief sought by WIAL in part by making some further changes to Rule NOISE-R3, which requires acoustic treatment and ventilation for noise sensitive activities buildings in the High and Moderate Noise Areas (which include the Air Noise Overlays)⁸³. These amendments make residential units in the MUZ a Restricted Discretionary Activity in a High and Moderate Noise Area where compliance with NOISE-S4 and S5 is achieved, and a Discretionary Activity where such compliance is not achieved. In relation to the NCZ, Mr Ashby recommended that residential units that comply with NOISE-S4 and S5 are permitted in the Moderate Noise Area, and restricted discretionary activities if they do not; in the High Noise Area, residential units would be a Restricted Discretionary Activities if they comply with those standards, and a Discretionary Activity if they do not comply.
150. Within the CMUZ, he recommends that residential units in the Inner Air Noise Overlay would not be Permitted, but they would be in the Outer Air Noise Overlay if they complied with the acoustic treatment and ventilation standards, and Discretionary where they did not comply.

⁸³ Outlined in the final set of recommended amended provisions provided with Mr Ashby's reply, dated 5 September 2023.

151. We agree with Mr Ashby's recommendations and consider that these would provide an appropriate management regime for new buildings and alterations for noise sensitive activities in non-residential zones within the Air Noise Boundary.

Airport Noise Standards or Airport Designation Conditions

152. The reporting officer advised that the noise standards in the PDP that are specific to noise from Wellington Airport are NOISE-S8 to NOISE-S15, covering: hours of aircraft operation; calculation and management of aircraft noise; engine testing noise; noise from ground power units and auxiliary power units; Airport East Side Precinct residential noise mitigation; land based noise; and Miramar South Precinct noise. He noted that the wording of each of these Standards reflects the designation conditions for the Airport's Main Site, East Side Area, and Miramar South Precinct.
153. WIAL sought to delete Noise Standards NOISE-S3, and NOISE-S8 through to NOISE-S13 as it considers it would be inappropriate to replicate the aircraft noise management obligations of the Airport Designations WIAL4 and WIAL5⁸⁴. This was supported by BARNZ, but opposed by Kāinga Ora and GOTB⁸⁵.
154. WIAL also sought that the remaining standards (NOISE-S4, S5, S14, S15) are either deleted or amended to remove any reference to Airport and Aircraft-related noise management, as it considered that issue is already covered by designation conditions⁸⁶. This was supported by BARNZ, but opposed by Kāinga Ora, GOTB and KiwiRail⁸⁷.
155. The reporting officer, Mr Ashby, advised us that the principal reason for replicating designation conditions as standards in the Plan was based on a desire by the Council to maintain ease of compliance management for noise infringements by third parties. He noted that an enforcement order for compliance to designation conditions can only be pursued via the Environment Court. He further noted that an abatement notice can only be pursued in relation to a rule or resource consent, and not in relation to designations. Thus, he contended that if the conditions are included as Plan standards, they will apply to the activities of third parties and would be more readily enforceable, if necessary. While Mr Ashby agreed that complete

⁸⁴ Submissions #406.440, 406.448–453

⁸⁵ Further submissions #139, 89 and 44 respectively

⁸⁶ Submissions #406.441, 406.442–446, 406.454–459

⁸⁷ KiwiRail [Further submission #72]

replication is undesirable, for aspects of the designation conditions that in material part relate to third party activities, he considered it useful to replicate these as Standards to facilitate compliance action, if that becomes necessary.

156. Through his Section 42A Report, however, Mr Ashby considered that some further refinement to the PDP as notified was possible, by focusing more closely on designation conditions that relate to noise emitted by third parties, rather than by WIAL. He recommended deleting NOISE-S9 in its entirety as this relates to the calculation and monitoring of aircraft noise. He also recommended deleting NOISE-S13 in its entirety, as this relates to a requirement for WIAL to offer the installation of mechanical ventilation to specific properties near the East Side Precinct. He also recommended deleting parts of NOISE-S12 and NOISE-S15 that do not clearly relate to the management of noise produced by third parties.
157. Mr Ashby advised that this revised approach would be supported by recommended rule changes. Specifically, in NOISE-R13, he recommended a link to compliance with particular designation conditions – being those that include elements of third-party noise management. He acknowledged that this is a ‘belt and braces’ approach, but as noted above, considered it useful for ease of compliance management through both rules and designation conditions. In developing this approach, he advised us that he had consulted with Council’s legal counsel.
158. Mr Ashby also recommended adding an advisory note to the explanatory text at the beginning of the Noise Chapter, in the box entitled “Other relevant District Plan provisions”:

Noise emissions from activities at Wellington International Airport is [sic] primarily managed by Wellington International Airport Limited’s Miramar South, Main Site and East Side Designations (WIAL2, WIAL4 and WIAL5). The rules set out in this chapter therefore only apply to the extent that the land subject to the designation is used for other than the designated purpose.

159. In response, Ms Kirsty O’Sullivan for WIAL considered that, while the duplication approach recommended by the Section 42A Report is somewhat novel when compared to other major airports around New Zealand, some of the designation conditions could be duplicated in the Proposed Plan, subject to some further refinement as follows:
- a. A note is included in the “*Other relevant District Plan provisions*” table to clarify to Plan users that the rules do not apply to activities being undertaken under the designation.

- b. Reference to the designation conditions, as recommended in the s42A report to be included in Rule NOISE-R13(1), are not included as they would duplicate the controls being sought in NOISE-S8 (Hours of Aircraft Operation), NOISE-S10 (engine testing), S14 (land based noise) and S15 (Miramar South Precinct)⁸⁸.
 - c. Designation conditions should not be referenced in the rules as these could be subject to change via a different statutory process under the RMA (a change to designation conditions occurs under Section 181)⁸⁹.
160. Through his supplementary evidence, Mr Ashby agreed with Ms O’Sullivan that references to designation conditions, as set out in Rule NOISE-R13(1)(b) should be removed. He noted that these references are no longer required, as WIAL appears to accept other relevant changes set out in Appendix A of the Section 42A Report which retain those notified standards, or parts of standards, that relate to third party activities, and with the remaining ones being recommended to be deleted.
161. He further agreed with Ms O’Sullivan that there should be a related explanation added to the “*Other relevant district plan provisions*” section of the Noise chapter, and recommended adopting wording similar to that proposed by Ms O’Sullivan, as set out in his final set of recommended amendments to noise provisions.
162. Based on the high level of alignment in recommended amendments between the planning advisers, we agree that the changes are needed to remove unnecessary duplication with the designation conditions or inappropriate standards. Accordingly, we recommend accepting in part the WIAL submission points on this matter, and recommend the amendments outlined in Appendix A of Mr Ashby’s evidence in reply.

3.6 Acoustic Treatment and Ventilation

Overview

163. As we outlined earlier, the PDP introduced a consistent uniform approach to specifying the acoustic treatment and ventilation requirements through noise standards that apply to High Noise Areas and Moderate Noise Areas. Following

⁸⁸ The s42A report originally recommended requiring compliance with a range of designation conditions as part of the permitted activity standards (at paragraph 202)

⁸⁹ Planning evidence of Kirsty O’Sullivan for WIAL, at paragraph 5.76

recommended amendments by the reporting officer, the High and Moderate Noise Areas in the PDP include:

High Noise Areas

- Within 40m of a state highway or railway designation
- Courtenay Place Noise Area
- General Industrial Zone
- Inner Air Noise Overlay

Moderate Noise Areas

- Centres Zones (CCZ, MCZ, LCZ, and NCZ)
- Between 40m and 100m of a state highway designation
- Between 40m and 100m of a Railway designation
- Commercial and Mixed Use Zones
- Waterfront Zone
- Outer Port Noise Overlay
- Outer Air Noise Overlay.

164. The acoustic treatment and ventilation requirements are applied through Rule NOISE-R3 'Noise sensitive activity in a new building, or in alterations/additions to an existing building', which requires compliance with NOISE-S4 (High Noise Areas) or NOISE-S5 (Moderate Noise Areas) to be a permitted activity. The acoustic treatment is based on what the Council's acoustic expert on this matter, Mr Hunt, referred to as the 'standardised level difference approach'.

165. The standardised ventilation requirements are applied through NOISE-S6.

Acoustic Treatment Standards

166. WIAL sought to introduce specific standards for acoustic treatment in the Air Noise Overlay based on "*Ldn levels of aircraft noise measured indoors*", which the Council's acoustic expert, Mr Hunt, called the 'indoor dBA' method⁹⁰ (another description is 'indoor noise limit', which we shall use). WIAL sought to achieve this

⁹⁰ At paragraph 52

by introducing a separate rule for noise sensitive activities in the Air Noise Overlay, which referenced compliance with two new standards:

- NOISE-S16 Air Noise Overlay – Internal noise environment, which would apply the acoustic treatment requirement based on the indoor noise limit method; and
- NOISE-S17 Air Noise Overlay – Ventilation, which duplicates NOISE-S6, adapted to refer to NOISE-S16.

167. We were advised by Mr Hunt that the approach of using indoor noise levels (measured in dBA) was investigated and rejected during the development of the District Plan for several reasons:

- Using an indoor A-weighted sound limit as a means of specifying acoustic insulation standards for buildings (i.e. the 'indoor noise limit' method) does not require building claddings, glazing, wall linings, etc to achieve any specified degree of acoustic protection across the audible sound spectrum, and would be generally ineffective in reducing outdoor low frequency sound.
- While this deficiency could be addressed by requiring compliance with a specified sound spectrum, Mr Hunt was not aware of any standardised guidelines on how the outdoor spectrum is to be specified, and, in the case of the Airport, the outdoor aircraft sound spectrum affecting (say) a building within close proximity to the runway, would be vastly different to the outdoor sound spectrum affecting a building located near the outer edge of the Outer Air Noise Boundary.
- The outcome for the indoor environment when acoustic insulation is specified using indoor noise levels is far from certain.
- The lack of published maps or reports that provide reliable estimates of the levels of outdoor aircraft noise in affected areas is a major drawback of the 'indoor noise limit' method for specifying acoustic insulation against aircraft noise.

168. Mr Hunt identified a number of advantages that he considered the standardised level difference approach had:

- A compliance pathway for complying with acoustic insulation in standards NOISE-S4 and NOISE-S5 can be established by reference to tables of acceptable construction materials for the external building envelope of habitable rooms: in the PDP, these minimum construction standards are found

within Table I and Table II at the end of Noise chapter. When followed, these construction tables provide a compliance pathway that will achieve the desired level of indoor acoustic protection without the need for a specialist acoustic design report.

- Insulation requirements can be checked and tested in the field by adopting the procedures set out within relevant international standards. In contrast, there are no NZ or international standards that provide guidance on methods to be used to ascertain compliance with indoor aircraft noise levels, based on achieving certain maximum indoor A-weighted sound levels.
- The standardised level difference approach method is consistent with that already adopted within the ODP, and is consistent with insulation requirements set out within the PDP at NOISE-S4 and NOISE-S5 which apply within the identified High and Moderate Noise Areas in the City.

169. The reasons for supporting the use of the indoor noise level approach were provided in the evidence of Mr Darren Humpheson for WIAL. In summary, we understand these to be as follows:

- The standardised level difference approach is at odds to the current arrangements in the Operative Plan and WIAL's Quieter Homes Programme, as well as the approach of three other Councils which have an international airport in each of their districts.
- While an experienced acoustics specialist would understand the PDP's sound reduction descriptor, Mr Humpheson doubts that homeowners, developers, builders, and architects would know that a correction (Ctr) must be included to account for the spectral shape of the noise source.
- The use of the standardised level difference approach would likely lead to confusion and inconsistency, and would require Council to expend effort to assess compliance with NOISE-S4 and NOISE-S5 at the consenting stage for non-standard construction types not listed in Table I and Table II of the Proposed Plan's noise chapter.
- The fixed internal threshold approach of the ODP for aircraft noise provides greater consistency that a desirable indoor noise environment will be provided.
- The standardised level difference approach could lead to different indoor noise levels between residences in two different Air Noise Overlays and a potential engineering overdesign of some dwellings.

- The PDP's approach does not differentiate between different room uses and their sensitivity to noise like the ODP does (between living and sleeping rooms), and will result in a much higher level of sound reduction for living rooms than recommended by AS/NZS 2107:2016. This over design will result in additional construction costs.
- The design requirement for the Quieter Homes Programme is 45 dB Ldn, and if a home is treated under the scheme and then the homeowner seeks to extend their property, the performance requirements of NOISE-S4 would apply. This would result in differing noise measurement requirements and resultant noise environments within the property as shown in Table 2, and inconsistent outcomes in regard to indoor noise amenity.
- Council has not provided any evidence that the current sound insulation requirements in the Operative Plan's ANB need amending, and he was not aware of any negative feedback that would justify aligning aircraft noise sound insulation with other sources of environmental noise.
- The Quieter Homes Programme is well established and operates efficiently and effectively using a similar approach to that of the Operative Plan⁹¹.

170. Support for the continued use of the indoor noise level method for the acoustic treatments of noise sensitive buildings in the ANB was expressed by Catherine O'Brien for BARNZ who considered it would be inappropriate and inefficient to overdesign buildings, and that operation of the requisite ventilation should be affordable for residents and/or tenants to operate. In reference to WIAL's Quieter Homes programme, Ms O'Brien considered it does not seem sensible to apply two different approaches, particularly where one is working⁹².

171. The acoustic expert witness for Kāinga Ora, Jon Styles, generally supported the acoustic insulation controls set out in S4 for 'high Noise Areas' and in S5 for 'moderate Noise Areas', but acknowledged that both methods have their pros and cons: *"Most of these are technical and vary according to the character and variability of noise that the controls are designed to deal with."*⁹³

172. Mr Styles observed that the acoustic treatment provisions in the PDP have to address a wide variety in the character, level and variability of different noise

⁹¹ Evidence of Darren Humpheson for WIAL, at paragraphs 5.10 to 5.34

⁹² Evidence of Catherine O'Brien for BARNZ, at paragraph 9.4

⁹³ Evidence of Jon Styles for Kāinga Ora, at paragraph 4.6

environments including airport noise, road noise, rail noise, port noise, entertainment noise and commercial and industrial noise. Given this variety, he was comfortable with the use of the standardised level difference approach⁹⁴.

173. In response, through his rebuttal evidence, Mr Hunt made a number of points, including the following:

- He did not consider acoustic design certificates and the like, where compliance is assessed against 'standardised level difference' limits, will likely present any difficulty for Council to assess and check, as this approach has been adopted as an inner city acoustic insulation standard in the ODP since it became operative on 25 June 2004.
- From his discussion with Council officers, in his opinion, adopting insulation rules using the 'standardised level difference' *"...will assist Council officers processing and checking acoustic design certificates and when checking compliance with NOISE-S4 and NOISE-S5"*.
- The ventilation standards would reduce the need to open windows (as is the case with proposed amended NOISE-S6) and therefore mean room occupants can experience the full benefits of the improved standard of insulation against aircraft noise under NOISE-S4 and NOISE-S5.
- There would be additional benefits from the improved standards of acoustic insulation inherent within NOISE-S4 and NOISE-S5, which will deliver amenity and reduced annoyance benefits to occupants of insulated rooms.
- He considered the acoustic insulation standards of NOISE-S4 and NOISE-S5 are efficient in achieving their purpose as they have been adopted for protecting sensitive indoor spaces within other zones and parts of the City. He advised that Council officers consider these types of insulation standards have reduced noise complaints from inner city residents where the standard has been implemented.
- The 'standardised level difference' approach would allow some building elements to be better acoustic insulators compared to other elements within the external building envelope to a habitable room.

⁹⁴ At paragraph 1.9

- An acoustic design certificate is able to exempt rooms from compliance where outdoor noise levels are insufficient to cause concern, that is, where outdoor noise levels do not exceed:
 - Less than 55 dB LAeq (1h) for rail noise; or
 - Less than 57 dB LAeq (24h) for highway noise; or
 - Less than 57 dB Ldn for port noise.
- These 'exemption' limits were specifically included in standards NOISE-S4 and NOISE-S5 to ensure acoustic insulation performance standards were not applied in situations where the outdoor noise levels are insufficient to warrant implementing measures to protect building occupants.
- He did not believe insulation costs of new or altered habitable rooms, to which NOISE-S4 and NOISE-S5 apply, are likely to be unreasonable given the high standard of acoustic isolation and better protection of sensitive indoor spaces than provided for in standards based around achieving Ldn 40 dB indoors.
- In terms of the inconsistency issue identified by Mr Humpheson, if a property-owner extends a house that meets the design requirement for the Quieter Homes Programme of 45 dB Ldn within habitable rooms, Mr Hunt considered that the same inconsistency effect would occur if the building extension were designed to comply with the Ldn 40 dB indoor noise limit proposed to be retained by WIAL⁹⁵.

174. In the face of the differences in the acoustic experts' opinions around sound insulation requirements, following the hearing, we directed (through Minute 33) the acoustic experts involved with the hearing to conference on the topic of the acoustic treatment standard. The purpose of the expert conferencing was to clarify the various experts' current positions on the advantages/disadvantages, costs/benefits, and efficiencies/inefficiencies of the 'indoor noise level' approach compared with the PDP's 'standardised level difference' approach. The outcome of this conferencing, undertaken on 6 September 2023, was reported back through a Joint Statement of Acoustic Insulation Experts. While no consensus was reached, this conferencing did clarify the acoustic experts' views.

⁹⁵ Rebuttal evidence of Malcolm Hunt, paragraphs 8 to 39

175. In the end, the Panel considered the issue to be finely balanced, with many of the disagreements between the acoustic experts as to the appropriate acoustic mitigation standards being largely technical in nature.
176. Overall, however, we were satisfied that the standardised level difference approach should be applied for all of the City's High and Moderate Noise Areas, recognising the benefits that would occur from the consistent implementation of a uniform and proven standard of acoustic insulation, which delivers a quality indoor amenity and reduced annoyance benefits to occupants. We were satisfied that the application of the indoor noise level approach the High and Moderate Noise Areas would ensure a level of consistency across the City, which would have advantages through further developing a common understanding, common processes and consistent outcomes and thereby create efficiencies. We have also concluded that the advantages of the standardised level difference method outweigh those of the indoor noise level method. While this approach may increase the relative costs of acoustic treatment, we were satisfied that these costs would be outweighed by a more readily achievable compliance pathway through the selection of specific construction materials, and by the provisions of higher quality internal noise environment.
177. In respect of Airport noise, we were not persuaded that the advantages of retaining the indoor noise level method would outweigh the uniform use of the standardised level difference method. While retaining the indoor noise level approach would have the advantage of maintaining the noise insulation management regime that has been in place for several decades, and one that is used for a number of other international airports around New Zealand, we did not consider these factors were persuasive. In particular, we question whether those other airports are managing a comparable set of issues. Further, the approach used in WIAL's Quieter Homes Programme stems from the designation conditions, and not the district-wide noise provisions. For these reasons, we recommend the application of NOISE-S4 and S5 to all High and Moderate Noise Areas, including the Air Noise Overlays, as recommended by the Council's advisers.

Ventilation Requirements

178. The PDP introduced standards ventilation requirements through Standard NOISE-S6. The ventilation requirements work in parallel with the acoustic treatment requirements of NOISE-S4 and S5 to ensure the internal noise reduction of buildings housing noise sensitive activities can be met while at the same time

achieving the ventilation requirements of the New Zealand Building Code. NOISE-S6 applies to buildings for noise sensitive activities in High and Moderate Noise Areas. Where the indoor noise levels can only be met if windows are closed, the ventilation requirements seek to ensure an appropriate form of mechanical ventilation is provided. Adequate ventilation must be provided within any room to which the acoustic insulation standards apply.

179. Yvonne Weeber and GOTB supported NOISE-S6 and NOISE-S7 as notified⁹⁶. Waka Kotahi sought amendments to NOISE-S6 to increase requirements for the adequacy of ventilation systems⁹⁷. KiwiRail sought amendments to NOISE-S6 (ventilation) to ensure habitable rooms achieve an appropriate level of comfort and amenity for occupants⁹⁸. WIAL sought that the ventilation standards in NOISE-S6 do not create an untenable internal living environment for occupants⁹⁹. WIAL also sought two new standards be added to the Noise Chapter (termed by WIAL as NOISE-S16 and NOISE-S17) that relate to acoustic treatment and ventilation specifically for Noise Sensitive Activities within the Air Noise Boundary or 60 dB Ldn Noise Boundary¹⁰⁰.
180. Following receipt of submissions on this plan topic, we were advised that Council officers agreed the ventilation provisions of PDP NOISE-S6 were inadequate in the situation where room occupants may be thermally uncomfortable, leading to the occupants sometimes leaving doors and windows open (which has the effect of allowing outdoor noise to affect indoor spaces). In other words, the lack of district plan thermal (heating/cooling) requirements would lead to poor acoustic outcomes. We were informed that a parallel ventilation standard was developed based on KiwiRail's submission.
181. An expert ventilation engineer, Owen Brown, was engaged by Council to provide comments and refinement of the revised NOISE-S6 standard. The finalised recommended re-wording of NOISE-S6 was set out in Appendix A to the Section 42A report.
182. In paragraphs 101 to 117 of his evidence, Council's acoustic expert, Mr Hunt, discussed ventilation requirements, and recommended amendment of NOISE-S6 to

⁹⁶ Submissions #390.94-95 and 452.51-52 respectively

⁹⁷ Submission #370.232

⁹⁸ Submission #408.113

⁹⁹ Submission #406.447

¹⁰⁰ Submissions #406.411-413

include more comprehensive requirements than the notified PDP, but in some circumstances more lenient than those sought by Waka Kotahi and KiwiRail.

183. In his evidence to the hearing, WIAL's acoustic expert, Mr Humpheson, provided a revised ventilation standard which was based on Mr Hunt's version and Plan Change 5E of the Christchurch District Plan, which simplifies the air change requirements by referencing back to the ventilation requirements of the New Zealand Building Code. In Mr Humpheson's opinion, for a new or altered home within the Outer Air Noise Overlay, an appropriate ventilation system will only be required to achieve an indoor sound level of 40 dB Ldn.
184. In relation to the recommendations of Mr Hunt, particularly his proposed amendment for a ventilation standard, Mr Humpheson agreed that best practice is to now include requirements for heating and cooling within rooms, and to have limits on the noise generated by the system. However, Mr Humpheson raised a number of issues he had with Mr Hunt's recommended changes, and proposed an alternative version, based on Mr Hunt's standard and that contained within Plan Change 5E to the Christchurch City District Plan.
185. In his rebuttal evidence, Mr Hunt outlined some difficulties he had with Mr Humpheson's evidence, including the lack of a requirement for a high rate room flush requirement in rooms required to be fully mechanically ventilated, and the allowance for noise emitted during the operation of the ventilation system to operate up to 40 dB within non-sleeping rooms, as this could be an intrusive sound level which may disincentivise occupiers to use it, negating the benefit of closed windows in reducing exterior noise.
186. At the Hearing, the Chair indicated that he saw value in having the relevant experts conference together to see if the differences in opinion could be resolved, which received support from the relevant parties. Accordingly, through Minute #33, the Panel issued a direction for this expert conferencing to occur. The results of the conferencing, which occurred on 4 September 2023, were provided in the form of a Joint Witness Statement, in which a revised version of standard NOISE-S6 was included. Only one outstanding matter of disagreement remained, which was in relation to the indoor noise performance standard for ventilation systems for habitable rooms that require acoustic insulation under NOISE-S4 and NOISE-S5, under clause NOISE-S6 2.c. Mr Hunt and Dr Chiles agreed to the following wording:

c. An HVAC system installed in compliance with (a) and (b) above must not generate an indoor noise level greater than 35dB LAeq (30s) when measured 1 metre from any outlet/inlet when operating at the maximum required duty, and...

187. Mr Selkirk and Mr Styles agreed that the wording should read “*when operating at the maximum required duty. This does not apply to initial start-up*”, while the remaining experts considered the wording should read “*when operating at the minimum required duty*”.

188. In the final set of recommended amendments to the PDP Noise provisions provided by the Council, clause NOISE-S6 2.c reads as follows:

c. Any ventilation system installed in compliance with (a) and (b) above must not generate noise at levels greater than 35 dB LAeq (30s) when measured 1 metre from any grille or diffuser up to maximum flow rate of three air changes per hour.

189. This wording is a slightly more specific version of the recommended wording agreed by Dr Chiles and Mr Hunt, where the “*the maximum required duty*” is specified as a “*maximum flow rate of three air changes per hour*”.

190. Given the high level of alignment between the experts, we recommend adopting the final set of recommended revisions to standard NOISE-S6.

191. Our recommendation for the uniform application of NOISE-S4 and S5 Acoustic Treatment Standard to High and Moderate Noise Areas, including the Air Noise Overlay, also applies to the ventilation standard under NOISE-S6.

3.7 State Highway and Rail Corridors

192. Under the PDP, land within proximity to state highways and the rail corridors come within the meaning of High Noise Area and Moderate Noise Area. Specifically, as notified:

The High Noise Area includes land and habitable rooms of buildings located within:

- 40m of a state highway corridor, and
- 40m of a Railway corridor.

The Moderate Noise Area includes land and habitable rooms of buildings located within:

- The area between 40m and 80m of a state highway corridor, and
- The area between 40m and 100m of a Railway corridor.

193. The development of buildings containing noise sensitive activities in these areas are controlled under rule NOISE-R3 and standards NOISE-S4, S5 and S6.
194. KiwiRail and Waka Kotahi sought a range of changes to the noise provisions in relation to development near the rail and state highway corridors respectively. These changes were helpfully summarised in the planning evidence of Ms Heppelthwaite for KiwiRail and Waka Kotahi¹⁰¹. For KiwiRail, the main changes sought to –
- Widen the extent to which the acoustic treatment and ventilation requirements applied to development for noise sensitive activities near these corridors¹⁰²;
 - Introduce a vibration control within 60m of the rail corridor¹⁰³; and
 - Introduce a new rule to make all noise sensitive activities which meet minimum indoor noise levels a permitted activity¹⁰⁴.
195. For Waka Kotahi, the main changes sought to –
- Include mapped noise contours along its entire network¹⁰⁵;
 - Amend Rule NOISE-R3.2 to refer to 100m from state highway or mapped noise contours¹⁰⁶; and
 - Include vibration controls within 20m of state highway within NOISE-S4¹⁰⁷.
196. Waka Kotahi also sought a number of minor amendments to the noise rules and standards for improved clarity.
197. KiwiRail and Waka Kotahi also sought changes to the subdivision provisions, which are addressed separately in Panel Report 5C. KiwiRail and Waka Kotahi lodged a further submission opposing many of Kāinga Ora’s submissions points on the noise provisions¹⁰⁸.
198. In the Section 42A Report, the reporting officer’s recommendations on KiwiRail and Waka Kotahi’s submissions were as follows:

¹⁰¹ At paragraph 5.0

¹⁰² Submission #408.110

¹⁰³ Submission #408.110

¹⁰⁴ Submission #408.105

¹⁰⁵ Submission #370.215

¹⁰⁶ Submissions #370.220-221, 370.215

¹⁰⁷ Submissions #370.226-227

¹⁰⁸ Further submissions #72, 103

- a. Retain the 40m High Noise Area for rail noise and 40m to 100m delineation for Moderate Noise Area rail noise in NOISE-R3;
 - b. Extend the outer boundary of the Moderate Noise Area for state highways from 80m to 100m;
 - c. Reject the request to include reference to vibration in NOISE-P4, unless a vibration standard for rail is included in the plan (which would then require provisions separate to airborne noise);
 - d. Accept that vibration is a matter to be managed, but did not support introduction of a vibration control within 60m of the rail corridor without further investigation;
 - e. Reject a new Rule NOISE-RX which proposes a Permitted Activity for all noise sensitive activities which meet minimum indoor noise levels;
 - f. Make amendments to policy NOISE-P6;
 - g. Update the noise metric (NOISE-S5) for road noise;
 - h. Modify ventilation requirements within NOISE-S6, but not in alignment with KiwiRail's submission;
 - i. Retain as notified NOISE-R2 and NOISE-S2.1 (relative to construction noise);
and
 - j. Amend NOISE-R3.1, NOISE-R3.3 and R3.4 to refer to NOISE-S6, as noted by the Section 42A Report author, reference to compliance with S6 (ventilation) is necessary to achieve the purpose of the provisions.
199. Through his supplementary evidence, Mr Ashby recommended clarifying the activity status of alterations/additions in Rule NOISE-R3, so that works adding 10% or less to the gross floor area of a habitable room do not require consent under the Noise chapter rules. He also recommended that an increase in the number of bedrooms via alteration/addition should not be exempt from the need for consent under the Noise chapter.
200. Mr Ashby also recommended revising NOISE-R3 to clarify that the status of noise sensitive activities other than dwellings are discretionary activities in the High Noise Area but are permitted, subject to meeting the acoustic insulation and ventilation standards, in the Moderate Noise Area.

201. No further recommended amendments were made in Mr Ashby's evidence in reply.
202. For the reasons he sets out in his report, we agree with Mr Ashby's final set of recommendations.

Spatial Extent of Corridors

203. As notified, the PDP used a standard setback distance for apply controls to noise sensitivity activities near the City's major transport corridors, with High Noise Areas including land within 40m of a state highway or railway corridor, and Moderate Noise Areas including land between either 40-80m of a State Highway or 40m-100m of a rail corridor.
204. In response to the evidence of Ms Heppelthwaite for KiwiRail and Waka Kotahi, the reporting officer acknowledged the advice of the Council's acoustic expert, Sean Syman, that it would be preferable to use mapped noise overlays based on peer reviewed modelling of the Wellington City's major transport corridors, following the same process already undertaken by WIAL to map the Air Noise boundaries.
205. However, Mr Ashby considered that, until such information is provided by KiwiRail and/or Waka Kotahi, his recommendation is to retain the notified approach of applying standard setbacks along these major transport corridors¹⁰⁹.
206. Kāinga Ora opposed a blanket 'default distance' approach to apply to the development/location of noise sensitive activities adjoining state highway and rail corridors¹¹⁰. Their preference was also an approach whereby the basis for any such package of provisions/rules within the PDP is based upon a modelled spatial extent of the likely noise effects which would be generated specifically for Wellington City.
207. The planning and acoustic advisers for Waka Kotahi agreed that a modelled setback was the preferred approach and advised that work on modelling for Wellington was in progress. In the meantime, the acoustic expert for Waka Kotahi, Mr Humpheson, recommended an outer boundary of 100m from State Highway designation rather than the notified 80m, based on national research on the State Highway network¹¹¹.

¹⁰⁹ Statement of supplementary evidence of Mark Ashby – Noise, at paragraph 11

¹¹⁰ Section 7 of the evidence-in-chief of Matthew Lindenberg for Kāinga Ora (Submission #390)

¹¹¹ Evidence of Darren Humpheson for Waka Kotahi and KiwiRail, at paragraph 7.3

208. In response to the acoustic evidence of Waka Kotahi, Mr Ashby agreed the outer boundary of the State Highway Moderate Noise Area should be extended from 80m to 100m and recommended the Moderate Noise Area include “the area between 40m and 100m of a state highway designation with a posted speed limit or maximum variable speed limit greater than >70 km/hour”. Areas between 40m and 100m of a State Highway designation of less than 70km/h would not be classified as a Moderate Noise Area given they are in already built-up areas, screened from state highway traffic noise by existing development¹¹².
209. We agree with Waka Kotahi and the Council advisers that the setback distance for the standards to apply near state highways should preferably be based on modelled noise contours for Wellington City, which we were informed Waka Kotahi is working towards. Until more detailed information is available, however, we agree with the approach recommended by Council advisers in applying the NOISE-R3 building controls on development within 100m of state highway designations, drawing on the evidence of Dr Chiles¹¹³. In the absence of more specific, we also agree with Council advisers to retain the notified setback distances for managing noise sensitive activities near railway designations.
210. In the absence of further detailed information on the spatial extent of vibration effects, we agree with Council advisers that the default proposed rail corridor setbacks for noise management should remain as notified, with the High Noise Area including land within 40m from the rail ‘designation’ (as opposed to ‘corridor’ which has no mapped delineation), and between 40m and 100m for the Moderate Noise Area.
211. We discuss the management of vibration on sensitive receivers near the rail corridor shortly. At this point, we simply record that we agree with Council advisers that it would be appropriate to introduce an advisory overlay into the PDP to alert property-owners and potential purchasers of properties within 60m of the rail designation of the potential for vibration effects from rail traffic.

Rule NOISE-R3

212. The Section 42A Report recommended the following rule structure in relation to development near the state highway and rail corridors:

¹¹² S42A report on Noise, at paragraph 183

¹¹³ Evidence of Darren Humpheson for Waka Kotahi and KiwiRail, at paragraph 7.3

- R3.1 – Permitted Activity within 40m road and rail, one dwelling where S4 (high noise) and S6 (ventilation) are met
- R3.2 – Permitted Activity within 40m-100m road (>70km/h) and rail, up to three dwellings where S5 (moderate noise) and S6 are met
- R3.3(a) – Restricted Discretionary Activity for two dwellings meeting S4 and S6 on a site listed in 3.1
- R3.3(d) – Restricted Discretionary Activity for four+ dwellings meeting S5 and S6 on a site listed in 3.2
- R3.3(e) – Restricted Discretionary Activity for any other noise sensitive activity meeting S5 and S6 on a site listed in 3.2
- R3.4(a) – Discretionary Activity for more than three unit on R3.1
- R3.4(b) – Discretionary Activity if not meeting R3.3.

213. For Waka Kotahi and KiwiRail, Ms Heppelthwaite expressed some concerns with this approach:

- a. Consent is required for some residential activities (e.g. R3.3(a) and (d) and R3.4(a)), even where acoustic mitigation and ventilation standards are complied with. The number of dwellings constructed at any one time does not change the need for an acoustic assessment, and should not therefore be a 'trigger' for consent being required;
- b. There are no Permitted, non-residential, noise sensitive activities, regardless of whether acoustic mitigation and ventilation standards are complied with;
- c. It is not clear what activity status a non-residential noise sensitive activity would have inside the NOISE-R3.1 area; and
- d. This rule structure will necessitate resource consent for all non-residential activities and, depending on the number of dwellings, some residential activities¹¹⁴.

214. Ms Heppelthwaite also preferred Restricted Discretionary Activity status for development where the standards are not met, as opposed to Discretionary Activity

¹¹⁴ Evidence-in-chief of Catherine Heppelthwaite, at paragraphs 9.2-9.3

status recommended by the reporting officer, as she considered the matters of discretion are well known, and greater certainty should be provided to applicants¹¹⁵.

215. Ms Heppelthwaite supported the approach taken by Dr Chiles and herself in regard to having specific noise and vibration controls relating to transport noise and the provisions generally set out in the attachment to her evidence.
216. In response, Mr Ashby identified a critical difference in approach in the management of development within the setback distance from the transport corridor. He stated that KiwiRail/Waka Kotahi considered there should be no activity status thresholds based on the number of dwellings, while for Permitted noise sensitive activities they rely on compliance with proposed standards, namely:
- Being set back at least 50m setback from the road or rail corridor; and
 - Constructed with a noise barrier entirely blocking line of sight to the road surface, or to all points 3.8m above railway tracks.
217. Mr Ashby considered it is more effective and efficient to place limits on the number of dwellings in High Noise Areas. He also considered that the solution proposed by KiwiRail/Waka Kotahi would impose significant additional costs on home building, or discourage building at all.
218. Through her summary statement to the hearing, the planner for KiwiRail and Waka Kotahi expressed her continued support for the approach taken by Dr Chiles and herself, as outlined through their evidence-in-chief.
219. The position and recommendations of the reporting officer, Mr Ashby, did not change through his evidence in reply.
220. We were satisfied by the reasoning provided by reporting officer and the Council's acoustic advisers for the approach to managing noise sensitive development alongside the major transport corridors, and therefore recommend adopting their proposed amendments to Rule NOISE-R3.

Rail Corridor Vibration

221. Through its submission, KiwiRail sought to have vibration control within 60m of the rail corridor introduced into the noise provisions¹¹⁶.

¹¹⁵ Supplementary evidence of C Heppelthwaite, at paragraph 7.3

¹¹⁶ Submission #408.110

222. Through his evidence-in-chief, the Council's adviser on this matter, Mr Syman, agreed with the intent of including rail vibration limits in the Noise Chapter. However, he expressed a number of concerns with KiwiRail's approach. In particular, he noted that the KiwiRail approach does not include vibration contours or provide a guarantee of vibration generated by the rail network. It also assumes the same set back distance for freight and passenger rail, which could result in potential unnecessary measurement and assessment for buildings not exposed to vibration¹¹⁷.
223. Mr Syman considered that KiwiRail should be expected to take best practicable options to mitigate vibration emission at or near source where possible as their activity increases. He considered that the vibration standard submitted by KiwiRail is an inequitable approach, with the proposed requirements for mitigation falling solely on the vibration sensitive receiver, with no restriction or control of vibration emissions at source from the operation of the rail line. He noted that the costs of the vibration isolation that would be imposed on vibration sensitive receivers by KiwiRail's proposed standard have also not been quantified. Evidence of the actual and likely vibration effects on sensitive activities from the Wellington Rail network has not been provided¹¹⁸. Mr Ashby agreed with Mr Syman on these points.
224. Due to the current lack of empirical evidence on vibration, Mr Ashby disagreed with the evidence of Ms Heppelthwaite, which called for vibration to be specifically referenced in NOISE-P4. He also noted that, in any event, vibration is inherent in references to noise in the policy as the RMA defines noise to also include vibration.
225. We fully agree with Mr Ashby and Mr Syman, and consider that it would be inappropriate to include any development controls to mitigate vibration effects near the rail corridor until a more substantive evidence base is available.
226. Through his evidence in reply, Mr Ashby noted that Mr Brown, appearing for KiwiRail, suggested to the Panel that further reporting to assist vibration controls could be completed if the Panel requested it, as was proposed in the Section 42A Report¹¹⁹. Mr Syman, who provided the Council's railway related advice, agreed that such a report would be of value and could be completed if requested by the Panel. However, we determined that making such a request would risk the ability of the Panel to report to the Council on the ISPP provisions in time to meet the

¹¹⁷ At paragraphs 31-32

¹¹⁸ At paragraphs 60 and 62

¹¹⁹ At paragraph 58 of Mr Ashby's evidence in reply. Such a report could be requested under RMA 41C(4).

(already extended) statutory timeframe of 20 March 2024. We also considered it likely that such a report would require further consultation, again risking the tight timeframe we had to work within.

227. In rejecting the introduction of development controls for rail vibration, Council advisers did consider there to be merit in adopting a separate vibration advisory overlay to be mapped over land adjacent to the railway corridor. Mr Ashby recommended this be introduced as a measure to remain in place until and if a workable rail vibration standard is developed. While he agreed with Ms Heppelthwaite that the overlay would have advisory purpose only, he considered it would be better included in the Definitions section of the District Plan, rather than in the Noise chapter Introduction. His recommended definition is that Rail Vibration Advisory Overlay means “*a distance of 60m beyond the railway designation boundary*” to advise potential property-owners of the potential for vibration from the rail corridor.¹²⁰ This overlay would be delineated on the planning maps.

3.8 Conclusions on Transport Noise

228. We agree there is a reverse sensitivity issue relating to noise generated by the use of the Airport, state highway and rail corridors in the City. While the onus of mitigating noise emissions is the responsibility of the owner of the source, given their role in carrying significant volumes of traffic, we agree that there is little that Waka Kotahi or KiwiRail can do to reduce noise emissions other than good maintenance. Similarly, there is limited ability for WIAL to directly mitigate Airport noise.
229. We agree that reverse sensitivity is a real resource management issue, confirmed by multiple Court cases and decisions, and embedded in case law. The advice provided by Mr Humpheson for WIAL on the research on the effects of people’s long term exposure to noise¹²¹, highlighting that the effects of noise occur along a spectrum: at one end, a complaint acknowledges annoyance (that is, an amenity issue) that can ultimately, over the longer term, lead to the other end of the spectrum with serious community-wide health issues.
230. Complaints and community discontentment can lead to constraints on the operation of critical infrastructure in the City: the curfew on flights at the Airport is one

¹²⁰ Statement of supplementary planning evidence – Mark Ashby, at paragraph 59

¹²¹ The evidence-in-chief of Darren Humpheson: for example, at paragraphs 3.27 and 3.31.

example. If development occurs in the absence of noise mitigation measures, pressure for longer curfews could arise, with significant impacts on Airport operations and efficiencies. We are satisfied that it is better to be precautionary through appropriate Plan policies and controls around the major sources of noise within the City.

231. We were also satisfied that it is appropriate to apply acoustic treatment and ventilation requirements on the development of buildings for noise sensitive activities within areas of high or moderate noise from transport activities. We were referred by Mr Humpheson to a World Health Organisation (WHO) report (also referenced by the reporting officer and GOTB) that provides evidence that a reduction in indoor aircraft noise exposure reduces the percentage of persons experiencing sleep disturbance and other adverse effects of aircraft noise experienced indoors¹²².
232. The RPS requires the PDP to give effect to managing reverse sensitivity issues for significant infrastructure like the Airport, which is nationally significant. The current noise management framework has been through the Environment Court. Objective 10 of the RPS is that the social, economic, cultural and environmental benefits of regionally significant infrastructure are recognised and protected, with Policy 8 to protect regionally significant infrastructure through regional and district plans.
233. We therefore agree that it is appropriate that the reverse sensitivity effects from road and rail noise be addressed in the same manner as for Airport noise: through the identification of High Noise and Moderate Noise Areas, in which requirements for acoustic treatment and ventilation are specified through standards NOISE-S4, S5 and S6.
234. Finally, we consider that managing the effects of vibration from the rail corridor on adjoining land is a difficult issue, and while in principle it may be appropriate to impose development controls, we had little material evidence on this issue and no costs/benefits evaluation. This contrasts with the information that is available on the noise from major transport corridors which has been extensively investigated and modelled¹²³. Without that information, we agree with Council's advisers that imposing development standards for vibration effect from the rail corridor could be

¹²² World Health Organisation, *Environmental Noise Guidelines for the European Region*, 2018, cited in the evidence-in-chief of Darren Humpheson for WIAL, at page 10.

¹²³ Evidence-in-chief of Dr Chiles, for Waka Kotahi and KiwiRail, at paragraph 7.3

unduly transferring the costs to development and property-owners, particularly on land that may be unaffected by vibration from the rail corridor.

235. We therefore do not recommend including vibration into the rules and standards as a specific matter. As an interim measure, however, until and if peer reviewed modelling and mapping information is provided, we agree with the reporting officer that an alert layer is the most appropriate method, with a new definition for 'Rail Vibration Advisory Overlay' included in the District Plan.

3.9 Minor and Inconsequential Amendments

236. The reporting officer recommended a suite of minor and inconsequential amendments to Appendix 4 and Appendix 5 of the PDP to correct omissions, mis-naming, incorrect references and other errors. The corrections were highlighted by the reporting officer as being necessary to clarify the permitted activity noise levels for Plan users and to make compliance more effective. We agree these amendments are required.
237. The reporting officer identified that the Port Noise Control line for the Burnham/Miramar Wharf area was inadvertently missed in mapping for the PDP. This control line was intended to be carried over from the ODP. We recommend it be included in the mapping as it only affects CentrePort and this submitter sought to have this reinstated in the PDP¹²⁴.
238. In relation to rule NOISE-R3, we recommend changing the title of this rule to clarify the rule applies to new building or alterations and additions of buildings that contain noise sensitive activities and not to the noise sensitive activities themselves:

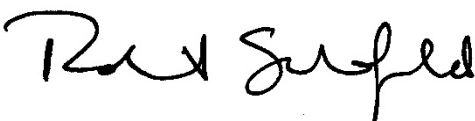
Noise sensitive activity in a new building, or in alterations / additions to an existing building to be used by a noise sensitive activity

¹²⁴ Submission #402.23

4 CONCLUSIONS

239. We recommended that a number of changes be made to the Noise chapter (NOISE) and associated appendices (APP4 and APP5). These are included in Appendix 1 to this report (including amendments made in respect of other recommendations where only the affected provisions are shown), with Appendix 1A being the recommended amendments to the Noise Chapter, and Appendices 1B and 1C being the recommended amendments to APP4 and APP5 respectively.
240. We have sought to address all material issues of the parties who have appeared before us put in contention in relation to Noise.
241. To the extent that we have not discussed submissions on this topic, we agree with and adopt the reasoning of the Section 42A Reports prepared by Mr Ashby, with the input of Council's technical advisers, as amended in his final written Reply.
242. To the extent that the Section 42A Reporting Officers have recommended amendments to the Plan requiring evaluation in terms of Section 32AA, we adopt their evaluations for this purpose.
243. Where we have discussed amendments, in particular where we have identified that further amendments should be made, our reasons in terms of Section 32AA of the Act are set out in the body of this Report.
244. Appendix 2 sets out in tabular form our recommendations on the submissions allocated to Hearing Stream 5A topics. Our recommendations on relevant further submissions reflect our decisions on the primary submission to which they relate.

For the Hearing Panel:



Robert Schofield
Chair, Hearing Stream 5

Dated: 8 February 2024