

Wellington City Proposed District Plan

Hearing Stream 4 –

Wind

Appendix 8

Appendix 14

**Section 42A of the Resource Management Act
1991**

REPORT FOR: **Independent Hearings Commissioners:**
Trevor Robinson (Chair)
Heike Lutz
David McMahon
Rawiri Faulkner

SUBJECT: **Wellington City Proposed District Plan –
Wind Section 42A Report**

PREPARED BY: Anna Stevens

REPORT DATED: 26 May 2023

DATE OF HEARING: 22 June 2023

1.0 Executive Summary

1. This report considers submissions received by Wellington City Council in relation to the relevant objectives, policies, rules, definitions, appendices and maps of the Wellington City Proposed District Plan (PDP) as they apply to the:
 - a. Wind Chapter;
 - b. Appendix 8 Quantitative Wind Study and Qualitative Wind Assessment – Modelling and Reporting Requirements (**Appendix 8**); and
 - c. Appendix 14 Wind Chapter Best Practice Guidance Document (**Appendix 14**).
2. There were nine submitters who collectively made 30 submission points on this topic.
3. There were three further submitters who collectively made three further submission points. Overall there were 33 total submission points on the Wind Chapter, Appendix 8 and Appendix 14.
4. The submissions received were diverse and sought a range of outcomes. The report outlines recommendations in response to the issues that have emerged from these submissions.
5. The following are considered to be the key issues in contention in the Wind chapter:
 - a. The application of the provisions in the Wind Chapter to apply to the Medium Density Residential Zone (MRZ) and High Density Residential Zone (HRZ);
 - b. Whether the provisions in the Wind Chapter should have a focus on maintaining and enhancing the comfort of public space;
 - c. Whether the height trigger for application of the wind assessment requirements in the City Centre Zone (CCZ) should be amended to align with the CCZ Minimum Building Height CCZ-S4;
 - d. Whether the height trigger in the Wind Chapter rules for the Centres should be amended to align with the maximum building heights for each respective zone; and
 - e. Whether or not the Wind Chapter rules should apply to the Special Purpose Tertiary Education Zone (TEDZ).
6. This report addresses each of these key issues, as well as any other relevant issues raised in the submissions.
7. The report includes recommendations to address matters raised in submissions as to whether the provisions in the PDP relating to whether the Wind Chapter provisions, Appendix 8 and Appendix 14 should be retained as notified, amended, or deleted in full.
8. Appendix A of this report sets out the recommended changes to the Wind Chapter, Appendix 8 and Appendix 14.
9. Appendix B of this report details officers' recommendations on submissions, and whether those

submissions should be accepted or rejected. The reasoning for these recommendations is set out in the body of this report.

10. For the reasons set out in the Section 32AA evaluation included throughout this report, the proposed objectives and associated provisions, with the recommended amendments, are considered to be the most appropriate means to:
 - a. Achieve the purpose of the Resource Management Act 1991 (RMA) where it is necessary to revert to Part 2 and otherwise give effect to higher order planning documents, in respect to the proposed objectives, and
 - b. Achieve the relevant objectives of the PDP, in respect to the proposed provisions.

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3.0 Interpretation

Table 1: Abbreviations

Abbreviation	Means
the Act / the RMA	Resource Management Act 1991
the Enabling Act	Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021
the Council	Wellington City Council
the Operative Plan/ODP	Operative Wellington City District Plan
the Proposed Plan/PDP	Proposed Wellington City District Plan
HRZ	High Density Residential Zone
MRZ	Medium Density Residential Zone
CCZ	City Centre Zone
TEDZ	Tertiary Education Zone
WFZ	Waterfront Zone
NPS	National Policy Statement
NPS-UD	National Policy Statement on Urban Development 2020
RPS	Wellington Regional Policy Statement 2013
Spatial Plan	Spatial Plan for Wellington City 2021
S32	Section 32 of the Resource Management Act 1991
S32AA	Section 32AA of the Resource Management Act 1991

Table 2: Abbreviations of Submitters' Names

Abbreviation	Means
Restaurant Brands Ltd	Restaurant Brands Limited
Kāinga Ora	Kāinga Ora Homes and Communities
Thorndon Residents' Association	Thorndon Residents' Association Inc
Retirement Villages Association	Retirement Villages Association of New Zealand Incorporated
WCC Environmental	WCC Environmental Reference Group
Victoria University	Te Herenga Waka Victoria University of Wellington
Property Council	Property Council New Zealand
Claire Nolan et al	Claire Nolan, James Fraser, Bidy Bunzl, Margaret Franken, Michelle Wolland, and Lee Muir

In addition, references to submissions includes further submissions, unless otherwise stated.

4.0 Introduction

4.1 Purpose

1. This report is prepared under section 42A of the Resource Management Act 1991 (the **RMA**) to:
 - a. Assist the Hearings Panel in their role as Independent Commissioners in making their decisions on the submissions and further submissions on the Wellington City Proposed District Plan (the **PDP**); and
 - b. Provide submitters with information on how their submissions have been evaluated and the recommendations made by officers, prior to the hearing.

4.2 Scope

2. This report considers submissions received by the Council in relation to the following:
 - a. General comments on the Wind Chapter;
 - b. Objective WIND-O1;
 - c. Policies WIND-P1, through WIND-P4;
 - d. Rules WIND-R1 and WIND-R2
 - e. Standards WIND-S1 and WIND-S2;
 - f. Appendix 8; and
 - g. Appendix 14.
3. This report discusses:
 - a. General issues;
 - b. The original and further submissions received;
 - c. Makes recommendations as to whether those submissions should be accepted or rejected; and
 - d. Concludes with a recommendation for changes to the plan provisions or maps based on the assessment and evaluation contained in the report.
4. This report is intended to be read in conjunction with the Section 42A Assessment Report: Part A – Overview, which sets out the statutory context, background information and administrative matters pertaining to the District Plan review and PDP.
5. The Independent Hearings Panel may choose to accept or reject the conclusions and recommendations of this report, or may come to different conclusions and make different recommendations, based on the information and evidence provided to them by submitters.

4.3 Author and Qualifications

6. My full name is Anna Mariebel Sutherland Stevens. I am a Team Leader in the District

Planning Team at Wellington City Council (the Council).

7. My role in preparing this report is that of an expert in planning.
8. I hold the qualification of Master of Planning and Bachelor of Arts (Geography and Psychology) from the University of Otago. I am an Intermediate Member of the New Zealand Planning Institute and have served for five years as a member of Wellington Branch Committee.
9. I have seven years' experience in planning and resource management. I had policy roles at Bay of Plenty Regional Council, Harrison Grierson and Boffa Miskell (including a secondment to Department of Corrections) prior to joining the Wellington City Council. In these roles I have been responsible for the preparation and lodgement of resource consent applications, providing general planning and feasibility advice under various district plans and processing private plan change as a consultant Council officer.
10. I have been involved with the District Plan review process since joining the District Planning Team in 2019. I have been involved with the development of the Spatial Plan and Draft District Plans since their initial drafting, participated in community engagement, and helped refine the provisions in the lead up to notification of the PDP.
11. I have led the drafting of new chapters for City Centre Zone, Te Ngākau Civic Square Precinct, Viewshafts, Wind, Special Purpose Hospital Zone and Special Purpose Tertiary Education Zone. I have assisted in the drafting of the Special Purpose Waterfront Zone, Special Purpose Port Zone, Inner Harbour Port Precinct, Multi-User Ferry Precinct, Special Purpose Stadium Zone, Temporary Activities chapter and Signage chapter and peer reviewed other chapters in the plan. I prepared the section 32 reports for the Wind topic, City Centre Zone, Te Ngākau Civic Square Precinct, Special Purpose Waterfront Zone and Special Purpose Stadium Zone.
12. I am also the reporting officer on the Viewshaft Chapter, City Centre Zone, the Centres and Mixed Use Design Guide and Special Purpose Stadium Zone.

4.4 Code of Conduct

13. Although this is a Council Hearing, I have read the Code of Conduct for Expert Witnesses contained in the Practice Note issued by the Environment Court, which came into effect on 1 January 2023. I have complied with the Code of Conduct when preparing my written statement of evidence and I agree to comply with it when I give any oral evidence.
14. Other than when I state that I am relying on the evidence or advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.
15. Any data, information, facts, and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. Where I have set out opinions in my evidence, I have given reasons for those opinions.

4.5 Supporting Evidence

16. The expert evidence, literature, legal cases or other material which I have used or relied upon in support of the opinions expressed in this report is as follows:
 - a. Expert evidence of Mr Nick Locke, Principal Research Engineer with WSP; and
 - b. Expert evidence of Dr Michael Donn, Building Environmental Design Consultant and Associate Professor at Te Herenga Waka Victoria University of Wellington.

4.6 Key resource management issues in contention

17. Having read the submissions and further submissions, I consider that the following matters are the key issues in contention in the chapter:
 - a. The inclusion of provisions in the Wind Chapter to apply to the Medium Density Residential Zone (**MRZ**) and High Density Residential Zone (**HRZ**);
 - b. Whether the provisions in the Wind Chapter should have a focus on maintaining and enhancing the comfort of public space;
 - c. Whether the height trigger for application of the wind assessment requirements in the City Centre Zone (**CCZ**) should be amended to align with the CCZ Minimum Building Height CCZ-S4;
 - d. Whether the height trigger in the Wind Chapter rules for the Centres should be amended to align with the maximum building heights for each respective zone; and
 - e. Whether the Wind Chapter rules should apply to the Special Purpose Tertiary Education Zone (**TEDZ**).

4.7 Procedural Matters

18. There are not considered to be any other procedural matters to note.

5.0 Background and Statutory Considerations

5.1 Resource Management Act 1991

19. Since public notification of the District Plan and publishing of the related section 32 evaluation reports on 18th July 2022, the following relevant statutory considerations have changed/been introduced:
 - a. **The Spatial Planning Bill and Natural and Built Environment Bill were introduced to Parliament and have been referred to Select Committees (14.11.2022).**
 - i. These Bills are currently before the select committee and have no implications for the plan.

5.2 Schedule 1 and the Intensification Streamlined Planning Process (ISPP)

20. As detailed in the section 42A Overview Report prepared and considered by the Panel in Hearing Stream 1, the Council has chosen to use two plan review processes:
 - a. The ISPP under Part 6 of Schedule 1 of the RMA for the intensification planning instrument (IPI). There are no appeal rights on ISPP provisions; and
 - b. For all other PDP provisions and content, the standard Part 1 of Schedule 1 process of the RMA is used. Part 1 Schedule 1 provisions can be appealed.
21. All wind provisions fall under the ISPP.

5.3 Section 32AA

22. I have undertaken an evaluation of the recommended amendments to provisions since the initial section 32 evaluation was undertaken in accordance with s32AA. Section 32AA states:

32AA Requirements for undertaking and publishing further evaluations

(1) A further evaluation required under this Act—

(a) is required only for any changes that have been made to, or are proposed for, the proposal since the evaluation report for the proposal was completed (the changes); and

(b) must be undertaken in accordance with section 32(1) to (4); and

(c) must, despite paragraph (b) and section 32(1)(c), be undertaken at a level of detail that corresponds to the scale and significance of the changes; and

(d) must—

(i) be published in an evaluation report that is made available for public inspection at the same time as the approved proposal (in the case of a national policy statement or a New Zealand coastal policy statement or a national planning standard), or the decision on the proposal, is notified; or

(ii) be referred to in the decision-making record in sufficient detail to demonstrate that the further evaluation was undertaken in accordance with this section.

(2) To avoid doubt, an evaluation report does not have to be prepared if a further evaluation is undertaken in accordance with subsection (1)(d)(ii).

23. The required section 32AA evaluation for changes proposed because of consideration of submissions with respect to this topic is contained within the assessment of the relief sought in submissions as required by s32AA(1)(d)(ii).
24. The Section 32AA further evaluation contains a level of detail that corresponds to the scale and significance of the anticipated effects of the changes that have been made. Recommendations on editorial, minor, and consequential changes that improve the

effectiveness of provisions without changing the policy approach have not been re-evaluated. Additionally, further re-evaluation has not been undertaken if the recommended amendments have not materially altered the policy approach.

5.4 Trade Competition

25. Trade competition is not considered relevant to the provisions of the PDP relating to this topic.
26. There are no known trade competition issues raised within the submissions.

6.0 Consideration of Submissions and Further Submissions

6.1 Overview

27. In total there were nine originating submitters who collectively made 30 submission points on the Wind Chapter, Appendix 8 and Appendix 14.
28. There were three further submitters who collectively made three further submission points in support or opposition to the originating submissions.

6.2 Report Structure

29. The consideration of submissions is organised by the provisions they relate to. Substantive commentary on primary submissions contained in further submissions has been considered as part of my consideration of the primary submissions to which they relate.
30. In accordance with Clause 10(3) of the First Schedule of the RMA, I have undertaken the following evaluation on both an issues and provisions-based approach, as opposed to a submission-by-submission approach.
31. Additional information can also be obtained from the associated Wind Section 32 Report.
32. The following evaluation should be read in conjunction with the summaries of submissions and further submissions, along with the full submissions. Where there is agreement with the relief sought and the rationale for that relief, this is noted in the agreement section of the report, with the associated recommendation provided in the summary of submission table in Appendix B. Where a further evaluation of the relief sought in a submission(s) has been undertaken, the evaluation and recommendations are set out in the body of this report. A marked-up version of the Wind Chapter, Appendix 8 and Appendix 14 with recommended amendments in response to submissions is contained in Appendix A.
33. This report only addresses definitions that are specific to this topic.

6.3 Format for Consideration of Submissions

34. For each identified topic, the consideration of submissions has been undertaken in the following format:
 - Matters raised by submitters;
 - Assessment of submission points made; and
 - Summary of corresponding recommendations.
35. Recommendations in relation to further submissions reflect the recommendations on the relevant primary submission.
36. The recommended amendments to the relevant parts of the PDP are set out in Appendix A of this report where all text changes are shown in a consolidated manner.
37. The recommended acceptance or rejection of submissions (and accordingly further submissions) is set out in Appendix B.

6.4 General Submission Points on the Wind Chapter

6.4.1 Matters raised by submitters

38. Restaurant Brands Limited [349.56] supports the Wind Chapter and seeks that the Wind chapter is retained as notified.
39. The Urban Activation Lab of Red Design Architects [420.5 (supported by Historic Places Wellington Inc [FS111.52])] seeks that the PDP needs to be amended to make greater provision for limited notification (as opposed to non-notification) to enable and support fair and reasonable compromises between neighbours.

6.4.2 Assessment

40. I acknowledge the submission point by Restaurant Brands Limited [349.56] to retain the Wind chapter as notified.
41. I understand The Urban Activation Lab of Red Design Architects's [420.5 (supported by Historic Places Wellington Inc [FS111.52])] concerns regarding wind effects from new developments on adjoining properties. I note that this submission relates to notification generally across the PDP, it is not relating to the Wind Chapter's rule notification statements. However, whilst I acknowledge that development can alter the experience of wind, I disagree that the PDP needs to be amended to make greater provision for limited notification in relation to wind effects (by way of *requiring* limited notification) for the following reasons:
 - a. The PDP only requires wind effects to be assessed in public spaces, not private spaces. As such it is unlikely Council officers will have information available on

wind effects on neighbouring properties to consider impacts on neighbours. Council is not seeking to change this focus to include private spaces. This would add considerable cost on development and resourcing for Council.

- b. The standards allow the Council to restrict building designs that have inappropriate wind outcomes through the requirements to provide qualitative and/or quantitative (wind tunnel or computer modelling) assessments;
- c. If applications were required to be limited notified, this would result in potentially significant additional costs where wind effects are minor; and
- d. Under the notified proposal, resource consent planners have the discretion to notify applications if they produce significant wind effects per s95B of the Act.

6.4.3 3.4.3 Summary of recommendations

- 42. **HS4-WIND-Rec1:** That submission points relating to ‘General Submissions’ are accepted/rejected as detailed in Appendix B.
- 43. **HS4-Wind-Rec2:** No changes are proposed to the Wind Chapter or other Proposed District Plan provisions as a result of general submission points on the Wind Chapter.

6.5 WIND-O1 – Purpose

6.5.1 Matters raised by submitters

- 44. WCC Environmental Reference Group [377.312] seeks that the provision is retained as notified.
- 45. Retirement Villages Association of New Zealand Incorporated [350.85 and 350.86] seeks to remove the first clause of the objective as follows:

WIND-O1	<p>Purpose</p> <p>The adverse impact of wind from new developments, additions and alterations on public spaces is managed to:</p> <ol style="list-style-type: none"> 1. Provide comfortable conditions for pedestrians, whilst acknowledging that not all wind effects can be mitigated; 2. Ensure that new developments, additions and alterations do not generate unsafe wind conditions in public spaces and, where possible, ameliorate existing unsafe wind conditions; and 3. Prevent the gradual degradation of Wellington’s pedestrian wind environment over time.
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6.5.2 Assessment

46. I acknowledge the submission point of WCC Environmental Reference Group [37.312] seeking to retain WIND-O1 as notified.
47. The requirement to consider wind conditions during the planning of new buildings first came into effect in Wellington in 1979. They have been applied in the City Centre Zone, Centres and Waterfront to date.
48. The focus of the Wind provisions in the PDP is to maintain or enhance comfortable and safe wind conditions for pedestrians and public users. 'Safety' and 'deterioration' criteria are assessed everywhere the wind provisions apply. In addition, specific 'comfort' criteria apply to listed public spaces in the CCZ and WFZ.
49. To clarify, WIND-O1.1 of which Retirement Villages Association of New Zealand Incorporated's [350.86] are seeking to have removed, relates to specific listed public spaces where comfort levels are sought to be protected which are recognised as having significant amenity, recreational and public value which are well frequented spaces by workers, residents and tourists, whereas other spaces do not need to meet comfort criteria. This does need clarification.
50. These public spaces are listed in Appendix 9 City Centre Zone and Special Purpose Waterfront Zone – Minimum Sunlight Access and Wind Comfort Control – Public Space Requirements (Appendix 9) and are specific to the CCZ and WFZ only. These parks vary in size and location across the CCZ and WFZ and include Midland Park, Waitangi Park etc.
51. The intent of the objective is to set up a rule framework that ensures that pedestrians to and from and enjoying these public spaces do not experience unsafe or uncomfortable wind conditions.
52. 'Comfort' is assessed through the related criteria in the Wind chapter, which considers the gradual deterioration of the pedestrian environment through development over time.
53. As noted in Dr Donn's evidence in paragraph 17, the purpose for the past 30 years of the deterioration criterion is to enable an assessment of the cumulative effects of development. By way of example, it seeks to avoid creating a situation where the first three buildings in a street all are considered acceptable because they do not generate dangerous winds, but each makes the situation significantly worse than before. Doing so would effectively ensure a fourth building cannot be built and meet the comfort standards.
54. Given this, I do not agree with Retirement Villages Association [350.86] I consider that it is important to retain comfort control for public spaces.
55. I note that the PDP does not require the comfort standard to be met in most parts of the city, for example not all streets or public areas in the CCZ and WFZ, nor in other zones, meaning it is quite restricted in its spatial application. The intent here is to provide a balance between mitigating adverse wind effects on well used public parks, while minimising cost for developers.
56. I consider more clarity could be provided in the objective to note that the comfort focus in the Wind chapter is specific to public spaces listed in Appendix 9.

6.5.3 Summary of recommendations

57. HS4-WIND-Rec2: That submission points relating to 'WIND-O1' are accepted/rejected as detailed in Appendix B.
58. HS4-WIND-Rec3: That WIND-O1 is amended as follows:

WIND-O1	Purpose
	<p>The adverse impact of wind from new developments, additions and alterations on public spaces is managed to:</p> <p>1. Provide comfortable conditions for pedestrians whilst acknowledging that not all wind effects can be mitigated;</p> <ol style="list-style-type: none"><li data-bbox="576 770 1394 869">1. Ensure that new developments, additions and alterations do not generate unsafe wind conditions in public spaces and, where possible, ameliorate existing unsafe wind conditions; and<li data-bbox="576 898 1394 965">2. Prevent the gradual degradation of Wellington's pedestrian wind environment over time; and<li data-bbox="576 994 1394 1140">3. <u>Ensure a comfortable wind environment in the public spaces listed in Appendix 9 – City Centre Zone and Special Purpose Waterfront Zone – Minimum Sunlight Access and Wind Comfort Control – Public Space Requirements, while acknowledging that not all wind effects can be mitigated.</u>

6.6 Policy WIND-P1 – Early Consideration of Wind in Design

6.6.1 Matters raised by submitters

59. WCC Environmental Reference Group [377.313] seeks that the provision is retained as notified.

6.6.2 Assessment

60. I acknowledge the submission point of WCC Environmental Reference Group [37.313].

6.6.3 Summary of recommendations

61. HS4-WIND-Rec4: That submission points relating to 'WIND-P1' are accepted as detailed in Appendix B.
62. HS4-WIND-Rec5: That the 'WIND-P1' provision is confirmed as notified.

6.7 Policy WIND-P2 Managing effects

6.7.1 Matters raised by submitters

- 63. WCC Environmental Reference Group [377.314] seeks that the provision is retained as notified.
- 64. Retirement Villages Association of New Zealand Incorporated [350.87, 350.88, 350.89 and 350.90] seeks to remove the reference to amenity in of the third clause and amends the second clause as follows:

WIND-P2	<p>Managing effects</p> <p>Require that larger-scale buildings, including additions and alterations, are designed to:</p> <ol style="list-style-type: none"> 1. Manage adverse wind effects that they create; 2. Improve the wind environment as far as <u>practicable</u> where existing wind conditions are dangerous; and 3. Limit any deterioration of the wind environment that effects: <ol style="list-style-type: none"> a. Safety and amenity of pedestrians; and b. Existing wind mitigation measures.
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6.7.2 Assessment

- 65. I acknowledge the submission point of WCC Environmental Reference Group [37.314] which seeks to retain WIND-P2.
- 66. I acknowledge and accept the submission points [350.89 and 350.90] from Retirement Villages Association of New Zealand Incorporated who seek to change ‘practical’ to ‘practicable’ in clause 2 of WIND-P2. I consider this change more accurately prescribes the intent of the policy, noting that according to the Merriam-Webster Dictionary definitions¹ ‘practical’ means “useful”, “actionable”, “applicable”, but ‘practicable’ means “feasible”, “possible”, “capable of being put into practice or being done or accomplished”. I consider that ‘practicable’ based on these definitions is more realistic when considering wind conditions.
- 67. I disagree with the submission point of Retirement Villages Association of New Zealand Incorporated [350.87 and 350.88] for the reasons detailed in paragraphs 52-56. As Dr Donn’s statement of evidence notes in paragraphs 17.2-17.3 the PDP Wind chapter deals with amenity in regards to a deterioration of the general wind environment in public spaces such as footpaths in high density environments through Wind standards (WIND-S1 and WIND-S2).
- 68. Dr Donn in his statement of evidence at paragraph 17.1 that the plan needs to avoid a situation where safety is the only criteria considered and that be the ultimate measure of acceptable wind effects. The upper limit of what is a ‘safe’ wind environment is a very high

¹ Miriam-Webster Dictionary, Incorporated, 2023:

- [Practical](#)
- [Practicable](#)

one. Dr Donn further states that if Council only accepted safety as a limit, all buildings could worsen the existing wind environment up to this high upper limit.

- 69. Dr Donn identifies that the ODP and PDP have intentionally avoided applying international definitions of acceptable 'comfort' across the urban area using such measures as the Lawson Criteria, and has instead focussed these measures to listed public spaces in Appendix 9 in the CCZ and WFZ. Comfort has not been applied to all public spaces (such as all footpaths) because compared to the listed public parks where people are stationary and dwell for extended periods of time, footpaths and other spaces are used temporarily as means of getting from A to B.
- 70. While much of the conversation in PDP hearings to date has been in respect of the 'amenity values' of sunlight and appreciation of character (however mixed that may be), my view is that the experience of wind effects can equally be contribute to a person's perception of amenity or pleasantness, and that the term is accordingly appropriate to use. I therefore reject the Retirement Village Association's submission to delete reference to 'amenity' from WIND-P1.

6.7.3 Summary of recommendations

- 71. HS4-WIND-Rec6: That submission points relating to 'WIND-P1' are accepted/rejected as detailed in Appendix B.
- 72. HS4-WIND-Rec7: That 'WIND-P2' is amended as follows:

WIND-P2	<p>Managing effects</p> <p>Require that larger-scale buildings, including additions and alterations, are designed to:</p> <ol style="list-style-type: none"> 1. Manage adverse wind effects that they create; 2. Improve the wind environment as far as practicalable where existing wind conditions are dangerous; and 3. Limit any deterioration of the wind environment that affects: <ol style="list-style-type: none"> a. The safety and amenity of the pedestrians s experience; and b. Existing wind mitigation measures.
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6.8 Policy WIND-P3 Comfort and Safety in Public Spaces

6.8.1 Matters raised by submitters

- 73. WCC Environmental Reference Group [377.315] seeks that the provision is retained as notified.
- 74. Retirement Villages Association of New Zealand Incorporated [350.91, 350.92 and 350.93]

seeks to amend WIND-P3 (Comfort and safety in public spaces) to remove the reference to comfort of public space in the policy as follows:

WIND-P3	Comfort and safety in public places Require building design and wind mitigation measures to maintain and where possible enhance pedestrian safety and comfort of public space.
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6.8.2 Assessment

75. I again acknowledge (as I have in response to Retirement Villages Association [350.86]) greater clarity is required to show that WIND-P3 is only intended to relate to the comfort of the wind environment for users of the listed public spaces in Appendix 9 in CCZ and WFZ, and not to other areas of the built environment. I recommend amendments to the policy to clarify this.
76. With respect to the comfort standards themselves, Dr Donn’s view, in paragraph 17.6 of his statement of evidence², is that the PDP’s comfort requirements are relatively balanced and enabling compared to other cities, whose provisions are broader in their spatial application. The Wind Issues and Options Report 2020³ provides a summary of overseas wind provisions in section 4.3 which is included in Appendix C.
77. The difference between the PDP wind rules and other plan approaches is that the PDP provisions can be simply and consistently applied, whereas for arguments sake, broadening the comfort criteria across the built environment require additional detailed assessment for a much greater number of buildings. This option for provisions is thoroughly canvassed in section 9.3 of the Wind S32 Report⁴ in terms of the costs, benefits and risks of utilising this approach.
78. I have noted above that the comfort criteria have been focussed to listed public spaces in Appendix 9 in the CCZ and WFZ where people are stationary and dwell for extended periods of time, compared to footpaths and other public spaces which are used temporarily as means of getting from A to B. As such I disagree with the submission points of Retirement Villages Association of New Zealand Incorporated [350.91, 350.92 and 350.93]. Section 4.3.2 of the Issues and Options Report (Appendix C) provides further context to the comfort provisions and an international comparison of approaches to comfort taken in different cities.

6.8.3 Summary of recommendations

79. HS4-WIND-Rec8: That submission points relating to ‘WIND-P3’ are accepted/rejected as detailed in Appendix B.
80. HS4-WIND-Rec9: Amend ‘WIND-P3’ as follows:

² Wellington City Council, Hearing Stream 4, Statement of Evidence of Dr Michael Donn May 2023

³ WSP, [Evaluation of the Wellington District Plan Wind Rules](#), 22 May 2020

⁴ Wellington City Council, [Wind Section 32 Report](#), 2022

WIND-P3	<p>Comfort and safety in <u>listed</u> public spaces</p> <p>Require building design and wind mitigation measures to maintain and where possible enhance pedestrian safety and the comfort of <u>the wind environment for users of the public spaces listed in Appendix 9 – City Centre Zone and Special Purpose Waterfront Zone – Minimum Sunlight Access and Wind Comfort Control – Public Space Requirements.</u></p>
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6.9 Policy WIND-P4 Comfort and safety in public spaces created through new development

6.9.1 Matters raised by submitters

81. WCC Environmental Reference Group [377.316] seeks that the provision is retained as notified.

6.9.2 Assessment

82. I acknowledge the submission point of WCC Environmental Reference Group [37.316] which seeks to retain WIND-P4 as notified.

6.9.3 Summary of recommendations

83. HS4-WIND-Rec10: That submission points relating to ‘WIND-P4’ are accepted as detailed in Appendix B.
84. HS4-WIND-Rec11: That the ‘WIND-P4’ provision is confirmed as notified.

6.10 Rule WIND-R1 Construction, alteration and additions to buildings and structures

6.10.1 Matters raised by submitters

85. WCC Environmental Reference Group [37.317] seeks that the provision is retained as notified.
86. Retirement Villages Association of New Zealand Incorporated [350.94 and 350.95] seeks to amend WIND-R1 (inferred WIND-R1.4) to ensure matters of discretion (1), (3) and (4) are limited by (2).
87. Kāinga Ora [391.304 and 391.305 (supported by Thorndon Residents’ Association Inc [FS69.23])] seeks to amend the rules in the Wind chapter so that they apply to the Medium Density Residential Zone and High-Density Residential Zone, where buildings go over 20m in height.
88. Kāinga Ora [391.306 and 391.307] seeks to amend WIND-R1 to align with the heights of

buildings restricted to between 12-20m depending on the Centre.

6.10.2 Assessment

89. I agree with Kāinga Ora [391.306 and 391.307] that consideration should be given to whether some of the Centres wind trigger heights (and in fact height triggers more generally) need to have a more tailored approach based on the density anticipated within the zones.
90. I consider that where the Wind chapter provisions should apply should be based on consideration of:
 - a. The current density of development and current wind conditions versus and wind conditions that may result from increased density enabled by new maximum height limits;
 - b. The relative risk of increased adverse wind effects from higher height limits without wind mitigation and design, compared to requiring mitigation; and
 - c. Whether a Qualitative Wind Assessment or a Quantitative Wind Study is required and the associated costs; and
 - d. The thresholds at which assessment is required, the areas to be protected, and whether safety and/or comfort are appropriate standards.
91. I note that a qualitative assessment takes one or two days to prepare, depending on the scale and complexity of the building/s, and would cost approximately \$2,000 to \$5,000, while a quantitative assessment generally take a few weeks to complete and costs around \$20,000 to \$35,000.
92. I disagree with the submission points of Retirement Villages Association of New Zealand Incorporated [350.94 and 350.95]. I do not agree that the matters of discretion (1), (3) and (4) should be restricted by (2) (extent and effect of non-compliance with standards). There is no hierarchy in these matters of discretion and the rule sets out an assessment framework with relevant policy assessment whether the safety and comfort standards are met or not. In this way the matters of discretion need to be considered holistically and in unison rather ascribing one greater weight. If WIND-S1, WIND-S2 and WIND-S3 are complied with, the assessment criteria regarding the extent and effect of non-compliance with them will not apply. I further explain my reasoning below.
93. In the ODP the Centres wind assessment trigger is tied to the building height limits for the zone. The PDP in most cases substantially increases these height limits as shown in Table 1 below.

ODP Centre Zone:	ODP Heights:	PDP Centre Zone:	Notified PDP Heights:
Central Area	<p>Aro Valley, Mount Cook and Mount Victoria edges of Central Area – 10.2m, 14.4m and 18.6m</p> <p>Thorndon and Te Aro – 27m</p> <p>CBD – 55-90; 50m</p> <p>Port – 27-40</p> <p>Lambton Harbour Area- Height Limit is Zero Metres above Mean Sea Level</p>	City Centre Zone	<p>Height Control Area 1 – Thorndon Quay - 35.4m</p> <p>Height Control Area 2 – Waterloo Quay section -50m</p> <p>Height Control Area 3 – Bulk of Thorndon - 27m</p> <p>Height Control Area 4 – Mid and Upper Molesworth Street - 43.8m</p> <p>Height Control Area 5 - CBD East - 48.5m-93m</p> <p>Height Control Area 6 - CBD West - 75m-95m (MSL) Mean Sea Level as defined by the New Zealand Vertical Datum 2016 (NZVD2016)</p> <p>Height Control Area 7– Eastern edge of CBD - 43.8m</p> <p>Height Control Area 8 –Te Aro - 42.5m</p> <p>Height Control Area 9 - South-East, South-West Zone Edge - 28.5m</p> <p>Height Control Area 10 - Adelaide Road - 42.5m</p>
		Special Purpose Port Zone	<p>Port Zone – 27m</p> <p>Inner Harbour Port Precinct (PORTZ-PREC01) – 40m</p> <p>Multi-User Ferry Precinct (PORTZ-PREC02) – 19m</p>
		Special Purpose Waterfront Zone	<p>Entire Zone, except Queens Wharf Buildings – Height of the existing building heights</p> <p>Queens Wharf Buildings – 18.1m</p>
Sub-Regional Centres (Johnsonville and Kilbirnie)	Mostly 12m with 18m in parts of Johnsonville.	Metropolitan Centre Zone	<p>Johnsonville -35m</p> <p>Kilbirnie:</p> <p>Height Control Area 1 - 27m Height Control Area 2 -15m</p>

ODP Centre Zone:	ODP Heights:	PDP Centre Zone:	Notified PDP Heights:
Town Centres (Karori, Miramar, Mount Cook – Adelaide Road, Newtown and Tawa)	Mostly 12m, with 18m in parts of Adelaide Road.	Local Centre Zone	Karori - 18m All other Centres – 22m
District Centres (Brooklyn, Churton Park, Crofton Downs etc.)	Mostly 12m except Churton Park		
Neighbourhood Centres (Aro Valley, Berhampore, Hataitai etc.)	Mostly 9m except Berhampore and Northland which are 12m	Neighbourhood Centre Zone	Height Control Area 1 – 12m (All Neighbourhood centres) Height Control Area 2 – 22m (Aro Valley Height Control B, Berhampore, Ngaio and Oxford Street Tawa)

94. Given these substantial height increases and scale of change from the existing environment, I consider it is important to reassess and reconfirm an appropriate rule framework, height trigger and assessment type, not just for centres but all of the zones to which the Wind provisions apply. My view is that if the centres wind height triggers areas are amended it is necessary to consequentially amend those of other zones for plan integrity and consistency of the wind conditions.
95. I consider that the notified chapter can be better drafted so that it is clearer when assessment against the standards of the chapter is required and when they are not. I also note there is an issue in WIND-R1.1, WIND-R1.2 and WIND-R1.3 where these permitted activity rules are subject to meeting standards WIND-S1, WIND-S2 and WIND-S3. This is a technical error in that under the permitted activity rules compliance with standards WIND-S1-WIND-S3 is not required where the development does not trigger the other permitted activity triggers i.e. where development does not build beyond the wind build height trigger. Development under these other permitted clauses would not be subject to wind standards and would not be assessed.
96. As such it is an error that ‘compliance with standards’ is included in the permitted activity rule. This should only be required where a development has breached the other Wind permitted activity triggers and thus requires a resource consent under the Wind chapter rules and an assessment of wind effects and thus compliance with standards.
97. It is not intended to be the case when those specific standards for additions for buildings and buildings of a low height are met. Accordingly, they should be removed so that relatively small scale buildings and additions are not subject to meeting the standards. Having them subject to standards would essentially require all development within the CCZ and WFZ to be subject to wind testing which is not the intention. I have detailed these changes in Appendix A.

98. The Wind Issues and Options Report⁵ section 5.6.2 identifies that there is no intrinsic building height that is ‘good’ or ‘bad’ for wind effects, but typically higher buildings usually create larger wind effects at ground level than lower height buildings. This is important because it means that in setting a height trigger for a wind assessment, there is no one level at which wind effects can necessarily be expected to reach a certain effects threshold.
99. As Mr Locke’s statement of evidence⁶ at paragraph 18.3-18.4 notes, the trigger heights of wind standards in other cities provides some indication of when it is sensible to manage the wind effects of new buildings. Auckland and London have a 25 m height triggers for consideration of wind effects as these are comparatively less windy than Wellington, where a trigger height for wind assessment of 18.6m is currently used in the ODP in the Central Area.
100. In addition to trigger heights for assessment there is flexibility in the type of assessment required at different building heights. Qualitative or descriptive assessments can be used to describe wind outcomes where effects are generally less significant at lower building heights, whereas quantitative or modelled wind assessments are more critical where larger buildings are proposed and wind effects in adjacent public spaces can be significant.
101. I have sought the advice of Dr Donn⁷ and Mr Locke who are of the view that there is benefit to applying a more consistent approach to wind trigger heights when qualitative or quantitative wind assessments are required from that notified in the PDP, in response to Kāinga Ora [391.306 and 391.307].
102. Dr Donn and Mr Locke recommend that a trigger height of 20m be used for provision of a qualitative wind assessment in the City Centre, Waterfront, Metropolitan Centre, Port zone: Inner Harbour Port Precinct and Ferry Precinct and Stadium zones, with a more onerous quantitative assessment required for buildings 25m or greater in height.
103. This split trigger height would help balance the depth of assessment (and accordingly cost to applicants) while managing the risk of adverse wind effects.
104. Similarly, they recommend heights of 15m for qualitative assessment in the Local Centre, Neighbourhood Centre Zone, High Density Residential Zone, Tertiary Education Zone and Hospital Zones, with quantitative assessments beyond 25m. The lower trigger height in these zones reflects the low existing building heights and the greater potential for comparatively increased adverse wind effects from buildings above 15m. I agree with Dr Donn and Mr Locke’s advice on the setting of these limits. I have tracked these recommended changes up in Appendix A.
105. I note that the difference in qualitative assessment triggers between the CCZ, WFZ, MCZ etc. and other zones that the wind rules apply to is based on a logic of having a higher trigger for the qualitative assessment in zones where the buildings are generally higher. Conversely I consider that a lower height trigger is appropriate in area where buildings are generally lower and winds speeds could be expected to possibly be higher due to taller buildings being enabled in lower density areas.
106. I note that the Wellington train station is an example of an existing building that sits within 20-25m height bracket (the point at which a qualitative wind assessment is needed in the

⁵ WSP, [Evaluation of the Wellington District Plan Wind Rules](#), 22 May 2020

⁶ Wellington City Council, Hearing Stream 4, Statement of Evidence of Mr Nick Locke May 2023

⁷ Wellington City Council, Hearing Stream 4, Statement of Evidence of Dr Michael Donn May 2023

CCZ but not a quantitative wind report). This is an example where it is important to have the qualitative assessment trigger at 20m, which reflect the wind trigger in the PDP for this zone, as the building has substantial bulk and exposure to wind. So it is important a wind assessment would be required for a similar building in the future.

107. As Mr Locke's statement of evidence⁸ notes in paragraph 17.6, a greater trigger height could be used, but this would allow more deterioration in the wind environment before wind controls could be used to limit adverse wind effects. My view is that it is not desirable to enable this to occur unconsidered.
108. Dr Donn and Mr Locke's recommendations with respect to the High Density Residential Zone presents a change from the notified PDP, but is one that I agree with given the potential for adverse wind effects will be pronounced given the existing low rise built form of the zone. As per paragraph 18 in Nick Locke's statement of evidence⁹ I agree that wind conditions are likely to deteriorate in the residentially zoned areas near large new developments, particularly without the application of Wind chapter provisions to these zones.
109. Mr Locke's statement of evidence notes where new buildings are constructed that are significantly higher than existing ones, new buildings are generally exposed to the stronger winds that blow at higher levels, which in turn generate downwash wind flows that produce localised windy areas near the base of the buildings.
110. Because of this downwash effect, buildings of even 4-6 stories, can produce dangerous wind speeds at street level. As Mr Locke's statement of evidence, paragraph 18.4-18.5, also notes as the height of buildings exposed to wind increase, the likelihood of dangerous wind speeds also increase. Over time it is possible that wind conditions can improve where a collection of larger buildings begin to provide shelter to some areas.
111. As Dr Donn notes in paragraph 18.9 of his statement of evidence¹⁰, the scale of development demonstrated by development examples like the Arlington Apartments wind tunnel tests suggests that anything beyond 14 metres is worth examining. As he notes in his evidence in paragraphs 18.8 and 18.9, this is particularly so if a 14 meter plus development is placed in the context of smaller buildings. See Figure 3 below:

⁸ Wellington City Council, Hearing Stream 4, Statement of Evidence of Mr Nick Locke May 2023

⁹ Wellington City Council, Hearing Stream 4, Statement of Evidence of Mr Nick Locke May 2023

¹⁰ Wellington City Council, Hearing Stream 4, Statement of Evidence of Dr Michael Donn May 2023



Figure 3: Showing the proposed Arlington redevelopment.

112. In this way I agree with Kāinga Ora [391.304 and 391.305] to apply the wind rules to the HRZ, but not to the MRZ.
113. Given that the considerable change in maximum building heights in the residential areas from the ODP to the PDP, particularly in the HRZ, I agree with Kāinga Ora that there needs to be consideration of wind impacts in the residential areas which will transition to a high density environment. Under the PDP the maximum height limits in residential areas will increase from ODP limits of 8-10m to 21m, which is a substantial increase.
114. Given the comparatively smaller increase in the MRZ from 8m in the ODP to 11m or 14m, I do not consider that these should be subject to the Wind Chapter provisions. A balanced approach, in my view, is to adopt a similar approach to that used in notified standard HRZ-S2, where assessment criteria are included in the equivalent for the MRZ, standard MRZ-S2 so that wind effects form part of the assessment criteria for over height buildings. This will have the effect of requiring developers to consider the impacts of over-height development (in the realm of that identified by Mr Locke and Donn as having the potential for adverse wind effects) and to consider this in the design of the development.
115. I have considered adding the MRZ to the list of zones subject to a quantitative or qualitative wind assessment under the Wind Chapter rules and standards. However, I consider that a balance has to be struck between mitigating adverse wind effects and the costs and resource requirements of wind assessments.
116. I anticipate that having an assessment criteria for exceedances in the 14m maximum height limit for wind effects will be sufficient to ensure wind is considered in the design of a new development.
117. I acknowledge that concerns about wind effects from increased building heights in residential areas has been evident throughout the public engagement process on the District Plan Review, as noted in Appendix 2 of the Wind Section 32 Report¹¹.

¹¹ [Wind Section 32 Report](#), 2022

118. HRZ-S2 in the PDP as notified already lists wind effects as an assessment criterion for multi-unit housing or retirement villages that exceed the height of 21m to acknowledge that buildings of such a scale can have adverse effects.
119. To reflect my agreement with the advice of Dr Donn and Mr Locke, and with the submission point of Kainga Ora in part, consequential changes should also be made to:
- a. The introduction of the chapter;
 - b. Appendix 8 – Quantitative Wind Study and Qualitative Wind Assessment – Modelling and Reporting Requirements introduction which I have detailed in Appendix A; and
 - c. Appendix 14 - Wind Chapter Best Practice Guidance Document.
120. I have detailed these changes in Appendix A.

6.10.3 Summary of recommendations

121. HS4-WIND-Rec16: That MRZ-S2 be amended as follows:

MRZ-S2	Building height control 2: 1. For multi-unit housing or a retirement village: or 2. Other buildings and structures.							
1. Buildings and structures must not exceed the following heights above ground level as identified on the District Plan maps:	Assessment Criteria where the standard is infringed:							
<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Location</th> <th style="width: 50%;">Limit</th> </tr> </thead> <tbody> <tr> <td>a. Height Area 1</td> <td>11m</td> </tr> <tr> <td>b. Height Area 2</td> <td>14m</td> </tr> </tbody> </table>	Location	Limit	a. Height Area 1	11m	b. Height Area 2	14m	<ol style="list-style-type: none"> 1. Streetscape and visual amenity effects; 2. Dominance, privacy and shading effects on adjoining sites; and 3. Effects on the function and associated amenity values of any adjacent open space and recreation zone. 4. <u>Wind effects where buildings and structures exceed Height Area 2 limit.</u> 	
Location	Limit							
a. Height Area 1	11m							
b. Height Area 2	14m							
This standard does not apply to:								
<ol style="list-style-type: none"> a. Fences or standalone walls; b. Solar panel and heating components attached to a building provided these do not exceed the height by more than 500mm; and c. Satellite dishes, antennas, aerials, chimneys, flues, architectural or decorative features (e.g. finials, spires) provided that none of these exceed 1m in diameter and do not exceed the height by more than 1m. 								

6.10.4 Section 32AA evaluation

Section 32AA evaluation for the consideration of wind in residential zones

122. In my opinion, the amendments to the Wind Chapter, Medium Density Residential Zone

and Appendix 8 are more appropriate in achieving the objectives of the PDP than the notified provisions. In particular, I consider that:

- a. The amendment to include application of the wind provisions to HRZ and to require consideration of wind effects in the MRZ where height limits are breached responds to the recognised change in density expected and maximum height limits from the ODP to the PDP.
- b. The amendments are consistent with the PDP's Strategic Direction Objectives, particularly the Capital City (CC), Sustainability, Resilience and Climate Change (SRCC), Urban Form and Development (UFD) Strategic Direction, including:
 - i. Building physical and social resilience through good design;
 - ii. Wellington remains compact by building on its existing urban form with quality development in the right locations;
 - iii. Urban intensification is delivered in a manner that meets the needs of current and future generations;
 - iv. The social, cultural, economic and environmental wellbeing of current and future residents is supported;
 - v. Development effectively manages the risks associated with climate change and supports the ability to adapt over time to the impacts of climate change; and
 - vi. Development supports the creation of liveable, well-functioning urban environments that enables people to provide for their social, economic, environmental, and cultural wellbeing, and health and safety now and in the future.
- c. The amendments give more targeted effect to the NPS-UD directions, in particular Objectives 1, 4 and 8, and Policies 1(c and f) and 6(c), as application of the rules to residential areas helps to:
 - i. Ensure well-functioning urban environments;
 - ii. Make Wellington's urban environment be resilient to current and future effects of climate change noting that climate change will make wind effects stronger and increase the necessity for buildings to be designed with the intention to reduce and mitigate wind effects;
 - iii. Ensuring people have good accessibility between housing, jobs, community services etc. as wind impacts from new buildings can adversely impact people's ability to move about the city as pedestrians and using active transport. Hence, new buildings need to be designed to minimise and mitigate adverse wind impacts upon the public environment; and

- iv. Balance managing adverse wind effects whilst acknowledging that amenity values change over time and need to be balanced with increased housing supply.

123. The environmental, economic, social and cultural effects of the recommended amendments to the vary from the provisions as notified.

Environmental	<ul style="list-style-type: none"> • I note that Wind provisions are existing controls under the ODP (and planning regulations before this as set out in the Wind Issues and Options report¹²) that have been brought through into the PDP but in a more rationalised, targeted and considered manner. • The change to include residential areas in the Wind chapter provisions will help to minimise and mitigate adverse wind effects in residential areas that have been earmarked for higher density development. This will help to reduce the extent that wind conditions will deteriorate in these areas, reducing impacts upon pedestrian safety. • As discussed in the Wind Chapter S32 section 4, these changes give effect to the Spatial Plan’s direction for enabling a liveable environment for city residents and having streets for people, which is the intent of the Wind chapter provisions.
Economic	<ul style="list-style-type: none"> • A balance has tried to be struck where between controlling adverse wind effects of large buildings, whilst minimising the regulatory burden and thus cost on development. • As detailed in Mr Locke’s expert evidence in paragraphs 24 the following costs for applicants associated with wind rules exist: <ul style="list-style-type: none"> ○ Specialist wind assessment: <ul style="list-style-type: none"> ▪ Qualitative Assessment – A qualitative assessment (i.e. expert opinion / desktop study) would generally take one or two days to prepare, depending on the scale and complexity of the building/s, and would cost approximately \$3,000 to \$6,000. ▪ Quantitative Wind Study - A quantitative wind study involves wind tunnel testing a physical scale model of the development and measuring wind speeds with and without the proposed building. These investigations generally take a few weeks to complete and cost around \$20,000 to \$35,000, depending on the size and complexity of the development and surrounding area. ○ Redesign - Costs associated with delays and fees for redesigning buildings that do not comply with wind standards are hard to predict as these costs are highly reliant on the specific development, its location and on the effort

¹² WSP, [Evaluation of the Wellington District Plan Wind Rules](#), 22 May 2020

	<p>put in by the developer and designed into the original design to minimise wind effects.</p> <ul style="list-style-type: none"> ○ Peer review - Peer reviews of wind assessments (qualitative or quantitative), often initiated by Councils, are likely to have similar or lower costs than a qualitative assessment. The quality of the information received by the reviewer will determine the time and costs of a review. ○ Resource consent process - The delays and processing costs associated with the wind controls can be significant if wind effects are particularly severe or if the application is of a poor quality. These costs are highly specific to projects. ○ Hearings - Costs associated with Resource Consent and Environment Court hearings are difficult to predict, as these costs are highly dependent on the specific development and on the degree of public submissions in opposition. <ul style="list-style-type: none"> ● Whilst there is a cost to the developer (which could range from minor to moderate depending on the extent to which wind was designed into the original building design and whether a qualitative or quantitative assessment is needed), not applying wind provisions will be a cost well-functioning urban environments as directed in the NPS-UD and to the health, safety and wellbeing of residents. ● There is a minor risk, depending on the financial situation for developers, that developers may be put off developing properties if their designs require a Quantitative Wind study due to the potential of adverse wind effects upon safety.
Social and Cultural	<ul style="list-style-type: none"> ● Applying the Wind chapter provisions to the HRZ and adding an assessment criteria to MRZ, helps to ensure development supports the creation of liveable, well-functioning urban environments that enables people to provide for their social, economic, environmental, and cultural wellbeing, and health and safety now and in the future. ● The only social cost which may occur is if as noted above a developer is deterred from developing due to the requirement for a Quantitative Wind Study thus deterring development and the potential creation of additional housing supply. Overall, this is expected to be unlikely given the relative costs of the assessment and development as a whole.

Section 32AA evaluation for the changes to the wind height triggers for Qualitative Assessments and Quantitative Studies

124. In my opinion, the amendment to the Wind Chapter and Appendix 8 are more appropriate in achieving the objectives of the PDP than the notified provisions. In particular, I consider that:

- a. The amendments help to provide more consistency and clarity within the Wind chapter rule framework across zones. For all Centres Zones (excluding the CCZ and MCZ), HRZ, HOSZ and TEDZ the wind height trigger has been made the same at 15m. For the CCZ, WFZ, MCZ, PORTZ and STADZ the height trigger is all the same. But most notably greater clarity and consistency has been provided through:
 - i. Having a graduated qualitative assessment and quantitative wind study approach that applies to all zones, i.e. making the Qualitative Assessment trigger between the zones' respective height trigger (15m or 20m) up to 25m the same for all zones and then development in any zone 25m or above requiring a quantitative wind study.
 - ii. Applying the same wind height trigger of the smaller centres zones (LCZ and NCZ) to HRZ and TEDZ and HOSZ.
- b. The amendments are still consistent with the PDP wind objectives and policies. The change to the rule framework still seeks to manage adverse impacts of wind from new developments, additions and alterations on public spaces.
- c. The amendments give more targeted effect to the NPS-UD directions, in particular Policy 2 and Policy 3(c)(ii), in terms of enabling greater contribution to development capacity, as well as Objectives 1, 4 and 8, and Policies 1(c and f) and 6(c) with regards to ensuring a well-functioning urban environment, an urban form that is resilient to current and future effects of climate change and wind effects are managed to avoid adverse effects on accessibility between housing, jobs, community services etc.
- d. The amendments are consistent with the Spatial Plan and PDP's Strategic Direction Objectives, particularly the Capital City (CC), Sustainability, Resilience and Climate Change (SRCC), Urban Form and Development (UFD) Strategic Direction which are detailed in S32AA in paragraph 136.c.

125. The environmental, economic, social and cultural effects of the recommended amendments vary from the notified provisions.

Environmental	<ul style="list-style-type: none"> • I note that Wind provisions are existing controls under the ODP (and planning regulations before this as set out in the Wind Issues and Options report¹³) that have been brought through into the PDP. • The changes will only have a minor environmental impact from raising the wind height trigger in the LCZ, NCZ, HOSZ and TERT. This is because the height trigger has only increased by 3m and there is now an introduced quantitative wind report requirement for
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¹³ WSP, [Evaluation of the Wellington District Plan Wind Rules](#), 22 May 2020

	<p>buildings above 25m in these zones.</p> <ul style="list-style-type: none"> • I consider that the changes will only have a minor environmental impact from raising the quantitative wind reporting threshold to 25m and above in the CCZ, WFZ, PORT, MCZ and STAD zones because a qualitative wind assessment will be required at 20m and the wind trigger height has not changed from the PDP, and is only 1.4m higher than the ODP trigger height (18.6m). • In the CCZ I consider that potential adverse effects could also be mitigated somewhat by the CCZ-S4 minimum building height requirement to prevent very low buildings being developed in the CCZ next to tall buildings, which would create a very adverse wind impact.
Economic	<ul style="list-style-type: none"> • The PDP Wind chapter provisions were drafted with the intention to provide a balance between controlling adverse wind effects of large buildings, whilst minimising the regulatory burden and thus cost on development. The amendments clarifying when an assessment is required and whether that assessment is qualitative or quantitative. This was not clear in the notified provisions. As notified the provisions would have required essentially all development in the specified zones to have wind assessments undertaken to prove compliance with the relevant standards. This is not warranted. • The changes will have a positive economic effect on development and development capacity as the trigger for a quantitative wind study (the more expensive reporting requirement when compared to qualitative assessment) has been raised to 25m or more (5m more than is currently provided for in the PDP for CCZ, MCZ, PORT, WFZ, STAD). • Accordingly, the quantitative wind reporting requirements trigger is set above (3m above) the CCZ-S4 minimum building height. As such developments can build to this minimum building height requirement and further without having to trigger the quantitative wind reporting requirement. In comparison in the notified PDP, developers would have needed to undertake quantitative wind reporting requirements even underneath the CCZ-S4 minimum height limit. • The proposed rule changes mean that developers can comply with the CCZ-S4 minimum building height of 22m whilst generally only needing to pay approximately \$2,000 - \$5,000 for a qualitative wind assessment versus paying for a \$20,000 - \$35,000 quantitative wind study (depending on the qualitative assessment outcomes). • There is a potential risk that developers may build up to the Quantitative Wind reporting height trigger of 25m, particularly in the CCZ where high density development is encouraged, and not beyond this, to avoid requiring a quantitative assessment. From a built outcomes, optimising development capacity and accommodating anticipated growth perspective this is an undesirable outcome.

Social and Cultural	<ul style="list-style-type: none"> I consider the changes to the wind rules continues to ensure development supports the creation of liveable, well-functioning urban environments that enables people to provide for their social, economic, environmental, and cultural wellbeing, and health and safety now and in the future.
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6.11 Rule WIND-R2 Construction, alteration and additions to buildings and structures

6.11.1 Matters raised by submitters

126. Retirement Villages Association of New Zealand Incorporated [350.96] supports the WIND-R2 and seeks that the provision is retained as notified.

6.11.2 Assessment

127. I acknowledge the submission point of Retirement Villages Association of New Zealand Incorporated [350.96] which seeks to retain WIND-R2.
128. I am of the view that the rule is not explicitly necessary as if a zone is not listed in rule WIND-R1, the requirement to obtain a resource consent does not apply. There are no submissions to remove the rule, but I would not be averse to that it being consequentially removed if considered appropriate.

6.11.3 Summary of recommendations

129. HS4-WIND-Rec18: That submission points relating to 'WIND-R2' are accepted as detailed in Appendix B.
130. HS4-WIND-Rec19: That the 'WIND-R2' provision is confirmed as notified.

6.12 Standard WIND-S1 Safety

6.12.1 Matters raised by submitters

131. Te Herenga Waka Victoria University of Wellington [106.8] seeks to amend WIND-S1 to not apply to the Tertiary Education Zone.
132. Property Council New Zealand [338.8 (opposed by Wellington's Character Charitable Trust [FS82.155])] seeks to amend WIND-S1 to increase the minimum gust speed from 20 m/s to 22 m/s.

6.12.2 Assessment

133. I disagree with the submission point from Te Herenga Waka Victoria University of Wellington [106.8] to amend WIND-S1 to not apply the standard to TEDZ. I note that the

wind rules in the TEDZ only apply to buildings that are adjacent to public streets. I consider it is important to apply wind rules and standards to tall buildings in TEDZ that could have an adverse wind impact on public streets.

134. This is more spatially narrow in scope than the requirements for other zones which are not limited to adjacent to streets. I consider this an appropriate balance where the University is not subject to the rules within those parts of the campus that are only likely to be used by students and staff, but that where development is likely to have a broader public impact, the rules do apply.
135. As Dr Donn notes in paragraph 19 of his statement of evidence there are existing adverse examples of development within the TEDZ that have contributed to adverse wind effects on public streets. This includes:
- The Wigan Street addition to the School of Architecture building - This building originally was deliberately designed to be just under the 18.6m height limit and then was added to later in a manner that sought to avoid the Wind Regulations.
 - Rutherford House refurbishments – refurbishments were needed to significantly improve the poor wind environment created by the original Rutherford house building design.
136. Dr Donn notes in paragraph 19.2 of his statement of evidence¹⁴ that the central Kelburn campus is on a ridge exposed to some of the worst winds in Wellington. The placement of tall buildings adjacent to the street either side of Kelburn Parade has made the area demonstrably worse, and in places dangerous. He notes that the oversized wind lobby on the Easterfield building is a clear demonstration of the issues that this kind of construction can take when the local environment has not been considered adequately. Dr Donn notes in paragraph 19.2, that the "hub" is an attempt by the university to try to combat the wind accelerations on-site that have been caused by existing Victoria University buildings.
137. Dr Donn notes that a greater focus is needed on the public streets between buildings with regard to quality environments because they are such a significant part of the affected public. As also detailed in the Wind Chapter Section 32 Report¹⁵ Appendix 2 (feedback on the Draft District Plan 2021), I consider that wind rules and standards including WIND-S1 should apply to TEDZ for the following reasons:
- Wind effects have been created from existing TEDZ buildings, particularly in the Kelburn Campus, but also Rutherford House near the station was an historical aerodynamic anomaly;
 - Heights have increased across both TEDZ campuses (Victoria University's Kelburn Campus and Massey University's Mount Cook Campus) quite substantially and this increased building height, and thus enabled taller buildings, will generate increased wind effects;
 - Both campuses have reasonably high pedestrian counts and pedestrian movements along adjacent roads given their central city locations; and
 - Both campuses are on elevated topography and thus are more exposed to Wellington's windy climate.

¹⁴ Wellington City Council, Hearing Stream 4, Statement of Evidence of Dr Michael Donn May 2023

¹⁵ [Wind Section 32 Report](#), 2022

- I consider that all Tertiary Education providers and Hospitals should be concerned about safety and comfort of users of their sites/campuses and those using adjacent public spaces as they enter and exit their sites and thus should design buildings to mitigate adverse wind effects within their sites and the surrounding streets as far as practicable. I note that these institutions attract high volumes of pedestrians coming and going from their sites, placing even more importance on good building design to mitigate adverse wind effects. To be able to do so, wind rules and standards must apply to these zones to enforce this. I also note neither Massey University or Capital and Coast District Health Board have submitted on the application of the wind rules to TEDZ or HOSZ.
138. I also note my recommendation to increase the wind trigger height for a qualitative assessment in the TEDZ and HOSZ (and LCZ and NCZ) to 15m, from 12m. This provides a balance between recognising the increased density and height limits enabled across these zones from the ODP to PDP, but still ensures adverse wind effects are considered and mitigated through a more cost effective assessment. This will enable a higher level of development without the need for wind assessment than the notified provisions.
 139. I note that the submission point from Property Council New Zealand [338.8] has been incorrectly processed in that it has been tagged to WIND-S1 with regards to WIND-S1's annual maximum gust speed excess metric from 20 meters to 22m in any public space.
 140. Upon referring back to Property Council's original submission I note this should have been tagged to WIND-R1.1 as it relates to the 20m CCZ Wind Chapter height trigger and associated Quantitative wind study requirements in the PDP within WIND-R1.
 141. In their submission they seek that this wind height trigger and quantitative wind study test requirement be increased from 20m to 22m to allow for a buffer to the CCZ minimum building heights (CCZ-S4).
 142. I agree in part with the submission point of Property Council New Zealand [338.8]. I note that the CCZ wind height trigger under WIND-R1.1 of 20m was already increased from the ODP wind height trigger of 18.6m. I can understand Property Council's concerns with regarding enabling development to building up to CCZ-S4 minimum building height and also requiring a detailed quantitative wind report trigger at 20m.
 143. I also note though that the purpose of CCZ-S4 and WIND-R1 are serve different policy purposes and respond to different resource management issues such that they do not necessarily need to be aligned with one another.
 144. To clarify, CCZ-S4 sets a minimum level of development in the CCZ in order to optimise development capacity of land in the zone and to avoid inefficient use of sites, particularly in light of the directive of the NPS-UD to maximise development capacity as much as possible in the central city.
 145. On the other hand, the wind trigger height's purpose is to manage new developments, additions and alterations so as to maintain or enhance comfortable and safe wind conditions for pedestrians and public space users.
 146. I note my recommendation HS4-WIND-Rec16 at paragraph 126 and the associated section 32AA assessments, particularly the economic impact consideration, where I have recommended that for the CCZ (and other zones) the quantitative wind study trigger increases to developments of 25m or more and that from 20m to 25m only qualitative

wind assessments are considered.

147. As noted in Mr Locke's evidence, even increasing the height of a reasonably low rise building from 20m to 22m would increase the ground level wind speeds by approximately 3%¹⁶. Given this I consider that it is appropriate to still require a qualitative assessment of wind effects even up to the minimum building height.

6.12.3 Summary of recommendations

148. HS4-WIND-Rec20: That submission points relating to 'WIND-S1' are rejected as detailed in Appendix B.
149. HS4-WIND-Rec21: That 'WIND-S1' is confirmed as notified.

6.13 Standard WIND-S2 Deterioration of the wind environment

6.13.1 Matters raised by submitters

150. Te Herenga Waka Victoria University of Wellington [106.9] seeks to amend WIND-S1 to not apply to the Tertiary Education Zone.
151. David Wojasz [295.8] seeks to amend the WIND-S2, by changing the wording to allow a minimum height building to be used as a reference to measure wind effects of proposed developments.

6.13.2 Assessment

152. I disagree with the submission point of Te Herenga Waka Victoria University of Wellington [106.9] which seeks that WIND-S1 does not apply to TEDZ. My reasoning for disagreeing with this submission point are the same as those extensively canvassed in my response to Te Herenga Waka Victoria University of Wellington [106.8].
153. I also disagree with the submission point of David Wojasz [295.8] who seeks an amendment to WIND-S2 for the reasons set out below.
154. I note that the safety criteria has not been changed between the ODP and the PDP, so the submission is satisfied, i.e. there have been no change to the safety limit. As Mr Locke notes in paragraph 23¹⁷ of his statement of evidence, the building height when wind effects must be assessed has increased in the PDP, so the submitters may be asking for wind assessments to apply to lower buildings, as per the operative plan.
155. Mr Locke advises that if this is the case, then the height threshold for assessing wind effects should not be confused with the safety limit, as the safety limit should not be exceeded regardless of when the wind effects of a building are assessed. He also notes that the threshold height has been set to limit the number of "permitted" buildings (i.e. buildings that do not require wind assessments) that will generate winds that exceed the safety limits.

¹⁶ J. Gandemer, Integration du phenomene vent dans la conception du milieu bati, December 1976

¹⁷ Wellington City Council, Hearing Stream 4, Statement of Evidence of Mr Nick Locke May 2023

6.13.3 Summary of recommendations

156. HS4-WIND-Rec22: That submission points relating to 'WIND-S2' are rejected as detailed in Appendix B.
157. HS4-WIND-Rec23: That 'WIND-S2' is confirmed as notified.

6.14 Appendices 8 Quantitative Wind Study and Qualitative Wind Assessment – Modelling and Reporting Requirements and Appendix 14 – Wind Chapter Best Practice Guidance Document

6.14.1 Matters raised by submitters

158. Claire Nolan, James Fraser, Bidy Bunzl, Margaret Franken, Michelle Wolland, and Lee Muir [275.42, 275.48] support Appendix 8 and Appendix 14 and seek that the provision is retained as notified.

6.14.2 Assessment

159. I acknowledge the submission points from Claire Nolan, James Fraser, Bidy Bunzl, Margaret Franken, Michelle Wolland, and Lee Muir [275.42 and 275.48] that seek to retain Appendices 8 and 14.
160. I have however recommended amendments to these documents consequential to others I have made with the intent of increasing certainty whether a qualitative or quantitative assessment is required, modify those trigger limits and include the High Density Residential Zone.

6.14.3 Summary of recommendations

161. HS4-WIND-Rec24: That submission points relating to 'Appendix 8' and 'Appendix 14' are accepted as detailed in Appendix B.
162. HS4-WIND-Rec25: That the 'Appendix 8' and 'Appendix 14' are amended as detailed in Appendix A. is confirmed as notified.

7.0 Minor and inconsequential amendments

163. Pursuant to Schedule 1, clause 16 (2) of the RMA, a local authority may make an amendment, without using the process in this schedule, to its proposed plan to alter any information, where such an alteration is of minor effect, or may correct any minor errors.
164. There are three amendments that I recommended be made which have no more than a minor effect and will have the benefit of increasing plan usability and clarity.

7.1 Amendments to the Wind Chapter:

165. Amendment to WIND-R2 heading as follows:

WIND-R2	Construction, alteration and additions to buildings and structures <u>not otherwise provided for in this chapter</u>
All zones <u>not otherwise listed in WIND-R1</u>	1. Activity status: Permitted

166. Amendment to WIND-S3 reference to Appendix 9 as follows:

WIND-S3	Comfort	
WIND-S3 applies to public spaces listed in Appendix 9 - City Centre Zone and Special Purpose Waterfront Zone – Minimum Sunlight Access <u>and Wind Comfort Control</u> – Public Space Requirements.	<ol style="list-style-type: none"> 1. A proposed development must not cause uncomfortable wind conditions in public spaces; and 2. A development must not cause existing uncomfortable wind conditions to deteriorate. 	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. The extent to which pedestrians can easily avoid areas where winds deteriorate and use other areas where the winds do not deteriorate; 2. The extent to which pedestrian use and expectations for the area where winds deteriorate are low and wind conditions elsewhere improve. 3. The extent to which a deterioration in winds at one location results from wind being redirected or shifted from one area to another, with no significant change in the overall wind conditions; 4. The extent to which existing wind conditions have been maintained or improved; 5. The extent to which very low existing winds speeds have been increased towards the comfort threshold; 6. The extent to which it is shown that the proposed design is the optimum aerodynamic solution, e.g. changes

		<p>in bulk or location of the proposed development are documented and do not significantly improve the situation. A “significant” improvement would be a difference of more than 175 hours per year; and</p> <p>7. The extent to which the proposed development design is consistent with advice and recommendations in the Wind Chapter Best Practice Guidance Document.</p>
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167. An amendment to Appendix 8 to reflect the associated changes made to the Wind Chapter as follows:

~~This appendix details the requirements for both quantitative wind studies and qualitative wind assessments in accordance with the Wind Chapter requirements.~~

~~Rule WIND-R1 details the height thresholds and development triggers when either a qualitative or quantitative wind assessment is required to show compliance with standards WIND-S1, WIND-S2 and WIND-S3 as relevant.~~

~~For the City Centre Zone, Metropolitan Centre Zone – Height Control Area 1, Special Purpose Port Zone, Multi-User Ferry Precinct, Inner Harbour Port Precinct, Special Purpose Stadium Zone and Special Purpose Waterfront Zone, a quantitative wind study will usually be required to show compliance with the wind standards. Council may accept a qualitative wind assessment when a development is likely to have little, if any, impact on wind conditions — refer to the Wind Chapter Best Practice Guidance Document (Appendix 14) for likely wind effects of buildings.~~

~~For the Local Centre Zone, Neighbourhood Centre Zone, Metropolitan Centre Zone — excluding Metropolitan Centre Zone Height Control Area 1, Special Purpose Hospital Zone and Special Purpose Tertiary Education Zone a qualitative wind assessment is usually all that is required to show compliance with the wind standards. However, if a development is assessed to have a large negative impact on wind conditions, then a quantitative wind study may be required to enable the wind effects of the development to be fully understood.~~

~~It is up to the discretion of the resource consent planner to decide whether a quantitative wind study or a qualitative wind assessment is required.~~

168. An amendment to Appendix 14 to specify that a Qualitative wind assessment must be undertaken by a suitably qualified and experienced person:

2.3.1 Considering wind early in the planning and design phase

For a resource consent application required through the Wind Chapter's rules, a Qualitative wind assessment (a desktop review based on expert opinion of a suitably qualified and experienced person) or a Quantitative wind report (detailed study based on wind tunnel testing or computer modelling) is required. The assessment or report is needed to fully understand complex wind flows generated by the development and the surrounding buildings.

169. HS4-WIND-Rec27: The following minor and inconsequential amendments relevant to this report are identified below and will be corrected:

170. The recommended amendments are set out in [Appendix A](#).

8.0 Conclusion

171. Submissions have been received in support of, and in opposition to the Wind Chapter, Appendix 8 and Appendix 14 of the PDP addressed in this S42a report.

172. Having considered all the submissions and reviewed all relevant statutory and non-statutory documents, I recommend that PDP should be amended as set out in Appendix A of this report.

173. For the reasons set out in the Section 32AA evaluation included throughout this report, I consider that the proposed objectives and provisions, with the recommended amendments, will be the most appropriate means to:

174. Achieve the purpose of the Resource Management Act 1991 where it is necessary to revert to Part 2 and otherwise give effect to higher order planning documents, in respect to the proposed objectives, and Achieve the relevant objectives of the PDP, in respect to the proposed provisions.

175. Achieve the relevant objectives of the plan, in respect to the proposed provisions.

9.0 Recommendations

176. I recommend that:

- a. The District Plan is amended in accordance with the changes recommended in Appendix A of this report; and
- b. The Independent Hearing Panel accept, accept in part, or reject submissions (and associated further submissions) as outlined in Appendix B of this report.

10.0 Appendices:

10.1 Appendix A: Recommended Amendments to the Wind Chapter, Appendix 8 and Appendix 14

Where I recommend changes in response to submissions, these are shown as follows:

- Text recommended to be added to the PDP is underlined.
- Text recommended to be deleted from the PDP is ~~struck through~~.

10.2 Appendix B: Recommended Responses to Submissions and Further Submissions on the Wind Chapter, Appendix 8 and Appendix 14

The recommended responses to the submissions made on this topic are presented in Table 1 below.

Appendix C: Evaluation of the Wellington District Plan Wind Rules