

BEFORE the Upper Hutt City Council

**Plan Change 45 Signs – Objectives, Policies and Rules,
Upper Hutt District Plan**

Under the Resource Management Act 1991 ('**RMA**')

In the matter of a submission and further submission by the New Zealand Transport Agency (submitter number 6) on Plan Change 45: Signs Objectives, Policies and Rules, Upper Hutt District Plan

**Primary statement of evidence of Aaron Charles
Hudson for the New Zealand Transport Agency**

Dated 30 April 2019

Introduction

1. My full name is Aaron Charles Hudson, my substantive position is a Planning Advisor within the System Design and Delivery group for the NZ Transport Agency (Transport Agency). Presently I am Acting as a Senior Planning Advisor and have been doing so since June 2018.
2. I hold a Bachelor of Science in Geography from Victoria University and a Post Graduate Diploma in Planning from Massey University.
3. I have over fifteen years' planning experience working in the transport industry.
4. For over six years I have worked at the Transport Agency. My current role, which I have held for two years, is to promote the effective integration of land-use and transport, in both Resource Management Act 1991 (RMA) statutory plans and the consenting of third party land use activities. Prior to this I worked in the National Integrated Planning team as a Policy Advisor.
5. Previously I worked for KiwiRail where one of my primary roles was to promote the integration of the railway with land use development in the preparation of RMA statutory plans.
6. I confirm that I have authority to give evidence on behalf of the Transport Agency.
7. I am accompanied today by Mr Stephen Muir, who is here as an expert witness for the Transport Agency. Mr Muir's expertise is in exterior lighting including assessing the obtrusive effects of outdoor lighting with regard to transport safety.
8. I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed. I understand that the Code of Conduct requires me to assist the Hearings Panel

impartially on matters within my expertise, and not to advocate for the Transport Agency.

Background

9. The Transport Agency is a Crown entity¹ established under section 93 of the Land Transport Management Act 2003. The Transport Agency's statutory objective is to 'undertake its functions in a way that contributes to an effective, efficient and safe land transport system in the public interest'².
10. Transport is a critical part of daily life for all New Zealanders, enabling a range of activities and making a significant contribution to the country's economic growth and productivity. Recognising this, over \$3 billion is invested in the land transport network through the National Land Transport Fund annually. Local government contributes another \$1 billion to the annual spend³.
11. While the transport system is owned and operated by various parties there is only one transport network. The Transport Agency and its investment partners (such as the Upper Hutt City Council) work together to provide integrated and seamless connections across networks, modes and services. This seamless connection is referred to as the 'one network' approach and ensures strong integration of transport decisions and land-use development and balances the needs of all network users.
12. The Transport Agency supports an integrated planning approach to provide planning and investment certainty and to enable the Transport Agency to fulfil its statutory purpose. Integrated land use and infrastructure planning will ensure that infrastructure investments contribute to and support economic growth and productivity and maintain a safe and efficient transport network. Integrated planning is critical to avoid undesirable outcomes such as ribbon development, stressed

¹ Section 93(2) Land Transport Management Act 2003.

² Section 94 Land Transport Management Act 2003.

³ Government Policy Statement on Land Transport: 2018/19–2027/28.

infrastructure, inefficient use of infrastructure, community severance and car dependency.

Scope of Evidence

13. The principal purpose of my evidence is to:
 - a) Indicate the areas and extent of alignment between the Transport Agency's primary and further submissions, and the assessments/recommendations of the Council's Section 42A report.
 - b) Further discuss any outstanding issues where the Transport Agency's views do not align with those of the Council officers.

Transport Agency's submissions on Proposed Plan Change 45 –summary

14. The Transport Agency made a submission (submitter 6) on Proposed Plan Change 45: Signs to the Upper Hutt District Plan (PPC 45). The submission was broadly supportive of the Council's objectives and policies on managing the location and design of signs.
15. The Transport Agency's submission raised concern over the lack of standards and guidance to promote the best practice design of digital signage to minimise road user distraction, particularly when visible from a state highway.
16. The key concerns raised by the Transport Agency in its submission were:
 - a) PPC 45 does not provide best practice guidance on the design of digital signage to mitigate driver distraction. Specifically, for digital signage, PPC 45 provides no best practice guidance on:
 - i. Management of content to ensure images do not contain animation or flashes that would potentially distract road users;
 - ii. dwell times for static images;
 - iii. transition times between static;

iv. Luminance and auto diming functionality to manage changes in daylight;

v. Malfunction management.

17. In my view, PPC 45, in its current state, does not go far enough to adequately address all of these concerns.

18. I rely on Mr Muir's evidence to inform best practice guidance on digital signage design to mitigate road user distraction and maintain a safe transport system.

PPC 45 Introduction, Objectives, Policies and Exemptions

19. The Transport Agency's primary submission broadly supported the introduction, objectives and policies of PPC 45. Minor amendments to the policies and objectives were sought by the Transport Agency to provide plan users with greater clarity of the provisions while promoting the need to protect the safe and efficient operation of the region's land transport system, including State Highway 2.

20. Specifically, primary submissions were lodged on the introductory section and proposed objectives, policies and exemptions as follows:

a) 8A.3.1 –Introduction to Signs;

b) Objective 8A.3.2.1 (b);

c) Policy 8A.3.3.3 (d);

d) Policy 8A.3.3.3 (e) (ii);

e) Policy 8A.3.3.5;

f) Exemption 8A.3.4 (d).

21. I have read the Council's section 42A report and I support the Planning Officer's recommendations as follows:

a) 8A.3.1 – Introduction to Signs – I agree with Planning Officer's recommendation to retain this provision as drafted.

- b) Objective 8A.3.2.1(b) – I agree with the Planning Officer’s recommendation to amend this provision as sought by the Transport Agency in its primary submission point 6.8.
- c) Policy 8A.3.3.5 – I agree with the Planning Officer’s recommendation to retain this provision as drafted.
- d) Exemption 8A.3.4 (d) – The Transport Agency sought (submission 6.4) to retain this rule as drafted. KiwiRail supported Exemption 8A.3.49 (d) in part but sought (submission 5.4) an amendment to this provision. I agree with Planning Officer’s recommendation to amend this provision as sought by KiwiRail in their submission⁴.

22. The Transport Agency lodged a further submission in support of Alison Tindale’s submission 2.6. Primary submission 2.6 sought to broaden the scope of Policy 8A.3.3.3 (d) by deleting the term ‘residential’ from the policy.

23. The Planning Officer recommends that both Alison Tindale’s primary submission and the Transport Agency’s further submission on Policy 8A.3.3.3 (d) be rejected. I consider that retaining Policy 8A.3.3.3 (d) as drafted does not alter the intent of the policy’s focus on mitigating the effects of moving, digital or changing signage on road safety.⁵ For completeness I also support the change sought by KiwiRail to change the reference within Policy 8A.3.3.3 (d) from *road users* to *transport network users*.⁶

⁴ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, Paragraph 79, pg 15, 8A/12

⁵ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 11, 12, 8A/9

⁶ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, Pp 11, 12

24. I support the Planning Officer's recommendation to retain Policy 8A.3.3.3(e)(iii) with the amendment sought by the Transport Agency (submission 6.9).⁷

PPC 45 Rules

25. The Transport Agency's primary submission (6.5) opposed Rule 8A.3.4.1. PPC 45 provided for health and safety signage as a permitted activity with no standards or guidance on the design and location of this signage.
26. Submissions on Rule 8A.3.4.1 were also received from PowerCo (4.4) and the Oil Companies (3.8). Both submitters sought that the Council include a definition for health and safety signage within the Upper Hutt District Plan. The relief sought defines the scope of health and safety signage and clarifies that this signage is required under statute.
27. The Transport Agency lodged a further submission in support of PowerCo's recommendation (submission 4.4) to insert a definition for health and safety signage within the Upper Hutt District Plan.
28. I agree with Planning Officer's recommendation to insert a new definition for health and safety signage. I support the recommended wording of the proposed definition as provided in Council's s42A report.
29. I consider that the Transport Agency's primary submission point 6.5 is no longer relevant as the relief recommended by the Planning Officer and provided through the submission by PowerCo, (4.4) addresses the concerns raised in the Transport Agency's primary submission. I consider that the Planning Officer's recommendations provide plan users with the necessary clarity toward allowing health a safety signage required under statute to be erected as a permitted activity.⁸

⁷ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg13

⁸ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 9, 13 -15.

Digital Signage

30. I support the Planning Officer's recommendation to change the activity status of Rule 8A.3.4.6 from discretionary to restricted discretionary. I support the Planning Officer's recommendation to ensure both permanent and temporary digital signs are assessed as a restricted discretionary activity. For completeness I support the redrafted wording of Rule 8A.3.4.6 as provided in Council's s42A report⁹.
31. To ensure the balance of PPC 45 aligns with the recommended change to Rule 8A.3.4.6, I generally support the Planning Officer's recommendation to include a new exclusion standard 8A.3.4.8 (d) but seek the following amendment¹⁰.
- a) 8A.3.4.8 (d) *Is not a digital sign or **a sign that incorporates movement or changing content.***
32. In my opinion the amendment sought will provide plan users greater clarity over the intent of this exclusion standard and provide greater linkage to Objective 8A.3.2.1 (b) and Policies 8A.3.3.3 (d), 8A.3.3.3 (e) and 8A.3.3.5.
33. I generally support the Planning Officer's recommendation to include a new exclusion standard 8A.3.4.13 (g) but for both completeness and clarity seek the following amendment¹¹.

⁹ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pp 18 - 21

¹⁰ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pp 18 – 21

¹¹ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pp 19, 20

a) 8A.3.4.13 (g) *Is not a digital sign or **a sign that incorporates movement or changing content visible from a state highway or road***

34. As a consequential amendment of changing the activity status of Rule 8A.3.4.6 to restricted discretionary, I generally support the Planning Officer's recommendation to amend the Matters of Discretion 8A.3.4.15 (i) (Traffic Safety) as included in Council's s42A report¹². However, the Planning Officer appears to have overlooked the Transport Agency's submission point 6.10 that sought to include best practice guidance on both dwell and transition times for digital signage.¹³
35. I consider that including dwell and transition time as a matter of discretion is necessary, to ensure that the design of digital, moving, animated and flashing signage is stringently managed to a high standard to mitigate the adverse transport safety affects associated with driver distraction.
36. As relief, I consider it appropriate that Council revise the Matters of Discretion – 8A.3.4.15 with the following or similar amendment
- a) 8A.3.4.15(ii) – the potential for obstruction, confusion or distraction in the observance of traffic directions, controls or conditions, **including by the dwell time and transition time of a digital sign that incorporates movement or changing content.**¹⁴
37. As best practice guidance, Australian/New Zealand Standard (AS/NZS) 4282 *Control of the obtrusive effects of outdoor*

¹² Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, paragraph 104, pg 20

¹³ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pp 19-20, 8A/17

¹⁴ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, 8A/17

lighting recommends a minimum dwell time of 10 seconds and a transition time of as close to zero seconds as possible.

38. I will rely on Mr Muir's evidence to expand on best practice dwell and transition times and how digital signage design needs to be managed to mitigate the risk of driver distraction.
39. I acknowledge the opposing further submission by the Oil Companies regarding the application of Rule 8A.3.4.6. The Oil Companies expressed concern that revised rule 8A.3.4.6 would also capture the balance of an existing static sign that only contained a digital component. I agree with the Planning Officer, in that the intent of Rule 8A.3.4.6 is to capture only the effects of the digital components of the Oil Companies' existing prime signs. For clarity the Planning Officer recommends the following Advice Note is inserted below table 8A.3.4¹⁵.

a) *For the purposes of Rule 8A.3.4.6, only the digital components of the sign will be subject to the rule.*

40. I generally support the Planning Officer's recommendation to clarify the intent of revised Rule 8A.3.4.6 by inserting an advice note below the Activity Status Table for Rule 8A.3.4.¹⁶ But where the Oil Companies are seeking to erect new prime signs then I consider that the whole new sign would need to be assessed against PPC 45.
41. I agree with the Planning Officer's recommendation to retain Rules 8A.3.4.7 and 8A.3.4.9 as drafted.¹⁷
42. The Transport Agency sought for PPC 45 to include best practice standards and guidance on luminance of signage. I therefore support the Planning Officer's recommendation to insert a reference within Permitted Activity Standard 8A.3.4.8 to refer

¹⁵ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, paragraph 107, pg 21

¹⁶ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, 8A/12

¹⁷ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 21

plan users to the proposed luminance standards within the proposed Permitted Activity Standard 8A.3.4.13(i)¹⁸.

43. I support the Planning Officer's recommended amendment of Permitted Activity Standard 8A.3.4.13 (c). The recommended relief provided in Council's s42A report will provide greater clarity for plan users and promote good practice guidance on the separation distance of signage from an intersection, a permanent regulatory or warning or advisory sign, a traffic signal and or pedestrian crossing.¹⁹
44. I support the Planning Officer's recommendation to insert new Permitted Activity Standard 8A.3.4.13(h).²⁰
45. I support in part the Planning Officer's recommendation to insert best practice luminance guidance as Permitted Activity Standard 8A.3.4.13(i). However, in February 2019, after PPC 45 was drafted, Australian/ New Zealand Standard (AS/NZS) 4282 *Control of the obtrusive effects of outdoor lighting* was released. AS/NZS 4282 updates the industry best practice guidance for managing the obtrusive effects of outdoor lighting including on transport safety.²¹
46. To ensure PPC 45 is consistent with AS/NZS 4282 as best practice guidance, I recommend either of the following (or similar) amendments to Permitted Activity Standard 8A.3.4.13 (i).

a) **8A.3.4.13 (i) All illuminated and digital signs visible from a road must be designed, installed and maintained to ensure they do not exceed the**

¹⁸ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, paragraph 115, pg 22

¹⁹ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 30, 31

²⁰ ²⁰ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 30, 31

²¹ ²¹ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 30, 31

maximum average luminance within AS/NZS 4282;
or

b) *8A.3.4.13 (i) All illuminated and digital signs visible from a road must be designed, installed and maintained to ensure they do not exceed the maximum average luminance standards within Table 3.5 of AS/NZS 4282*

47. Mr Muir's evidence will expand on the changes to best practice guidance that AS/NZS 4282 has introduced since PPC 45 was drafted.
48. The Transport Agency lodged a further submission opposing the changes sought by the Oil Companies to Standard 8A.3.4.13(f)(iii). The changes sought in submission 3.11 would significantly narrow the scope of this standard and have unanticipated effects on road safety and the motorists view of intersections, accessways and footpaths. I agree with the Planning Officer's recommendation to reject primary submission 3.11 for the reasons provided in Council's S42A report.²²
49. I agree with the Planning Officer's recommendation to reject the changes sought (submission 2.13) by Ms Tindale to Standards 8A.3.4.13 –Traffic Safety. I agree with the reasons provided in Council's s42A report, that submission 2.13 would overly narrow the scope of Permitted Standard 8A.3.4.13 beyond its intent.²³
50. The Transport Agency supported the advice note at the end of Permitted Activity Standard 8A.3.4.13. However, submission point 6.14 also sought the addition of the following text as a second advice note to alert plan users to the additional signage controls within the Upper Hutt City Council Control of Advertising Bylaw.

²² Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 29, 30

²³ Osborne B, 2019 Proposed Plan Change 45: Signs Council Hearing Report pursuant to s42A of the Resource Management Act, pg 29, 30

a) **It is also advised to check the Upper Hutt City Council Control of Advertising Signs Bylaw 2005 to ensure all signs comply with Council's specific requirements.**

51. To recognise this bylaw has now been updated I recommend that the relief sought in the Transport Agency's submission (6.14) is amended by replacing 'Control of Advertising Signs Bylaw 2005' with the 'Control of Temporary Signs Bylaw 2018'.
52. Paragraph 163 (4) of Council's s42A report references this submission, but then appears to overlook providing a planning recommendation on this matter. For clarity, I seek for Council to provide a recommendation on whether the Transport Agency's primary submission point 6.14 should be accepted or rejected. It is my view that the Advice Note sought through the Transport Agency's submission point 6.14 should be included.

Conclusion

53. I request that the Commissioner's consider the requests outlined in this evidence; to give consideration to the potential and cumulative transport safety effects that will arise from the poor design and location of permanent and temporary signage visible from the district's roading network, including State Highway 2.
54. I will attend the hearing on this matter.

Aaron Charles Hudson
30th April 2019