SECTION 42A REPORT

Supplementary evidence in response to expert evidence filed by submitters

Topics:

Setbacks from the rail corridor

Noise and vibration from transport corridors

National Grid provisions

Telecommunications

Report prepared by: Carolyn Wratt

Dated: 18 November 2024

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1. Introduction

1. My name is Carolyn Wratt. I am the writer of the original s42A reports for Hearing Tranche 2 for the following chapters:

    a. Energy;

    b. National Electricity;

    c. Network Utilities; and

    d. Transport.

2. My qualifications and experience are set out in the section 42A reports in section 1, along with my agreement to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023 as set out in section 1.1 of the s42A reports.

2. Purpose of the report

3. The purpose of this report is to consider primary expert evidence filed by submitters.

4. Evidence was filed by the following submitters:

Sub number	Submitter	Matters addressed in this supplementary s42A report
11	KiwiRail Holdings Ltd (**KiwiRail**) - Pam Butler (corporate) - Catherine Heppelthwaite (planning) - Stephen Chiles (noise and vibration)	Setback of structures from the rail corridor Noise generated from transport corridors Vibration generated from the rail network

Sub number	Submitter	Matters addressed in this supplementary s42A report
		TRAN-R14
17	New Zealand Transport Agency Waka Kotahi (**NZTA**) - Tayla Cowper (planning) - Stephen Chiles (noise)	Noise generated from transport corridors NU-PX
31 FS30	Transpower New Zealand Limited (**Transpower**) - Rebecca Eng (corporate) - Pauline Whitney (planning)	Definition of National Grid Yard Definition of Transmission Sensitive Activity(ies) NU-P22
9	Chorus New Zealand Limited, Spark New Zealand Trading Limited, One New Zealand Group Limited, Connexa Limited and Fortysouth Group LP (**Telecommunications companies**) - Graeme McCarrison for Spark New Zealand Trading Ltd - Andrew Kantor for Chorus New Zealand Ltd	Telecommunications equipment in roads within overlays Permitted activity status and standards for telecommunication poles and attached antennas in some zones where they currently require resource consent as a discretionary activity regardless of scale

Sub number	Submitter	Matters addressed in this supplementary s42A report
	- Colin Clune for One NZ Group Ltd and Fortysouth Group LP - Fiona Matthews for Connexa Ltd - Chris Horne (planning)	Coastal setbacks for telecommunications equipment in roads Earthworks controls for network utilities in Hazards Zones

5. It should be noted that I have not provided commentary on all evidence, particularly where either the submitter agrees with my recommendation in the s42A report, or where we simply have a difference in view and there is little more to add.

6. I have therefore focused primarily on evidence that has caused me to change my recommendation, or where there is value in further discussion on the matters raised in evidence. Where I have recommended further amendments to provisions, these are coloured blue, while the recommendations from my original s42A reports (dated 21 October 2024) are coloured red.

7. I have structured this report by each matter addressed in the evidence filed.

3. Setbacks from the rail corridor

3.1 Matters addressed in submitter evidence

8. TRAN-R9 controls the erection of structures within 5m of the railway corridor or within 20m of an indicative road, and makes these a restricted discretionary activity. KiwiRail [51.32 and 51.23] supported the rule

insofar as it manages activities adjacent to the railway corridor, but was concerned that the rule would restrict KiwiRail undertaking its own operations for the 5m *within* the railway corridor. In response, I recommended a number of amendments to the rule in my s42A report to make it function more clearly.

9. Ms Butler and Ms Heppelthwaite filed evidence on behalf of KiwiRail in support of a 5m setback for structures and buildings from the rail corridor. Ms Butler considered that a safety setback is important to provide enough space within a site adjoining the rail corridor for the landowner or occupant of that building to maintain and access their own house or building safely – without accessing the rail corridor to do so, or getting too close to heavy freight trains. She considered that buildings constructed close to the rail corridor do not leave enough space on site for essential maintenance activities. The lack of space means it is highly likely that these activities can only happen by accessing the rail corridor.[1] She also considered there was a risk of objects falling from the likes of windows onto the tracks, which presents a hazard for any trains.[2]

3.2 Analysis and recommendations

10. Ms Heppelthwaite supported a further amendment to the title of TRAN-R9 so that it applies to the rail designation boundary (which is clearly defined) rather than the rail corridor.[3] I have no objection to this minor amendment and consider that it improves the clarity of the rule. I therefore recommend that the heading for TRAN-R9 be amended as follows:

> TRAN-R9. Erection of structures ~~on or~~ adjacent to a railway ~~corridor~~ designation boundary or an indicative road

11. KiwiRail [51.49] sought inclusion of a rule in various zones which required buildings to be setback 5m from the rail corridor. I assessed the "standard" setbacks for each zone which illustrated that the only zones

[1] Evidence of Pam Butler on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 4.5
[2] Ibid, paragraph 4.7
[3] Ibid, paragraph 7.4.

where the standard setback was less than 5m for internal boundaries were[4]:

a. RESZ Residential zone;

b. RLZ Rural lifestyle zone (but only for sites 1,500m^2 or less);

c. SETZ Settlement zone;

d. COMZ Commercial zone; and

e. MPZ Māori Purpose zone (but only for sites 1,500m^2 or less).

12. I noted that TRAN-R9 achieves the 5m setback requested by KiwiRail anyway (albeit the rule is not located in each zone chapter)[5] as TRAN-R9 applies across the District irrespective of zone. The only matter of contention is where in the PDP this rule is located. The evidence from Ms Butler and Ms Heppelthwaite did not support the single centralised location approach and instead sought a rule located in each chapter rather than TRAN-R9. Ms Heppelthwaite considered that locating a rule in each zone chapter is preferable from a Plan user and administration perspective.[6] I agree that locating the rule in each zone chapter reduces the risk of the rule being overlooked. From Council's GIS, I understand that the KiwiRail designation either adjoins or is within 5m of the following zones:

a. COMZ Commercial Zone;

b. GRZ General Rural Zone;

c. NOSZ Natural Open Space Zone;

d. OSZ Open Space Zone;

e. RESZ Residential Zone;

[4] Section 42A report for Transport, Carolyn Wratt, 21 October 2024, paragraph 108.
[5] Section 42A report for Transport, Carolyn Wratt, 21 October 2024, paragraph 109.
[6] Evidence of Catherine Heppelthwaite on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 7.3.

f. INZ Industrial Zone;

g. MPZ Māori Purpose Zone;

h. FUZ Future urban Zone; and

i. RPROZ Rural Production Zone.

13. When considering these rules in the zone, I noticed that the setback rule in the zone chapters is framed around "buildings" whereas the setback from the KiwiRail designation boundary in TRAN-R9 applies to "structures". There are key differences between these definitions as a "structure" is anything made by people and fixed to land, whereas a "building" is a subset of this and has a roof. The significance of this is that even though the zones listed above have minimum setbacks for *buildings* greater than the 5m requested by KiwiRail, there is a risk of *structures* being in close proximity to the rail lines without a rule (either in a centralised location or in the zone chapter). Because of this subtlety, the existing TRAN-R9 rule would need to be duplicated into each of the relevant zone chapters listed in paragraph 12 even though the minimum setback rules for the zone are greater than 5m.

14. I considered whether there is still a role for TRAN-R9, and concluded that it needs to be retained as it captures structures not within a zone (such as within a road reserve) and it still needs to control structures in close proximity to indicative roads. The retention of TRAN-R9 plus the replication into each of the zone chapters appears to be a considerable amount of duplication and risks inconsistencies across the Plan, particularly as it may be affected by future plan changes. I therefore consider that the most efficient way to address this issue is to retain the single centralised rule in TRAN-R9, but insert signposting in each of the zone chapters which refers to TRAN-R9 for setbacks from the designation boundary of a railway corridor. I recommend wording such as this:

> RESZ-R21A. Minimum setback from the designation boundary of a rail corridor
>
> Refer to TRAN-R9

15. The new signpost could be inserted into the zone chapters after the existing setback rules to keep all the setback requirements together, with the locations set out below:

Zone	Placement of the new signpost
Residential Zone	After RESZ-R21
Commercial Zone	After COMZ-R28
Industrial Zone	After INZ-R22
General Rural Zone	After GRUZ-R38
Rural Production Zone	After RPROZ-R20
Natural Open Space Zone	After NOSZ-R11
Open Space Zone	After OSZ-R12
Māori Purpose Zone	After MPZ-R22
Future Urban Zone	No need for changes as this zone relies on the General Rural Zone rules.

16. As this recommended approach does not affect any provisions, a s32AA evaluation is not required.

4. Noise Generated from Transport Corridors

4.1 Matters addressed in submitter evidence

17. In the section 42A report for Transport, I addressed the submissions from and KiwiRail which sought:

    a. Redrafting of the notified internal acoustic rule which applied to properties in close proximity to a state highway; and

b. Inclusion of a new rule which applied noise and vibration standards to noise-sensitive activities and buildings in close proximity to the rail network.

18. In the section 42A report, I recommended largely adopting the rules agreed by the parties through appeals to the Waikato PDP which involved:

a. Deleting the setback requirement for buildings from state highways;

b. Deleting the notified rules managing internal acoustic levels in close proximity to state highways (RESZ-R25, RLZ-R25, SETZ-R38, COMZ-R30, GRUZ-R44, MPZ-R24, TOUZ-R35);

c. Mapping a State Highway Noise Control Boundary either side of the state highways (with varying width as shown on NZTA's GIS viewer) on the PDP maps;

d. Mapping of a Rail Corridor Noise Control Boundary which applied to 40m either side of the North Island Main Trunk Rail designation on the PDP maps; and

e. Including a redrafted rule in the Noise chapter which manages internal acoustic levels within buildings containing a sensitive activity within the State Highway or Rail Corridor Noise Control Boundary.

19. Evidence was filed on this matter by both Ms Cowper on behalf of NZTA and Ms Butler and Ms Heppelthwaite on behalf of KiwiRail. Both parties were represented by Dr Chiles in terms of evidence on noise and vibration.

20. Starting with Ms Cowper, she made the following points:

a. Support for the deletion of setbacks from state highways for the purpose of mitigating against noise effects on the basis that the

State Highway Noise Control Boundary sufficiently manage these effects;[7]

b. Support for the relocation of provisions related to noise sensitive activities to the Noise Chapter;[8]

c. Support for the deletion of the notified rules regarding internal noise levels from the zone chapters;[9]

d. Support for inclusion of a State Highway Corridor Noise Control Boundary on the PDP maps up to a maximum of 100m from the edge of the sealed state highway carriageway;[10] and

e. Amendments to the recommended NOISE-RX to include critical elements identified by Dr Chiles.[11]

21. In terms of the evidence filed by Ms Heppelthwaite, she supported my recommendation to delete the zone-specific noise provisions from the Proposed Plan and adopt the more common approach across the country of noise controls being located within the Noise Chapter.[12] She drew on the technical evidence of Dr Chiles and sought:

a. Management of the noise effects arising from the rail be increased from 40m to 100m;

b. Provisions to manage vibration effects should apply 100m from the edge of the rail designation boundary; and

c. Minor amendments to my recommended noise provision.

4.2 Analysis and recommendations

22. As there are multiple parts to this matter, I address each of them below.

[7] Evidence of Tayla Cowper on behalf of New Zealand Transport Agency Waka Kotahi, 4 November 2024, paragraph 6.8.
[8] Ibid, paragraph 7.1.
[9] Ibid, paragraph 7.1.
[10] Ibid, paragraph 7.2.
[11] Ibid, paragraphs 7.6-7.8.
[12] Evidence of Catherine Heppelthwaite on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 7.8.

Width of the Rail Corridor Noise Control Boundary

23. As pointed out by Ms Butler, the 100m Rail Corridor Noise Control Boundary was adopted in Waikato PDP and applied to all active train lines. Ms Butler has further described that all rail lines in the Waitomo District are active.[13] I recommended reducing the width of the Rail Corridor Noise Control Boundary to 40m for the Waitomo District in my s42A report for two reasons:

    a. An assumption that the rail lines in Waitomo have a lower frequency of train movements than Waikato; and

    b. The level of development is considerably lower in Waitomo District, particularly in the urban environments. Areas like Pookeno and Tuakau now have the Medium Density Residential Zone applied to land adjoining the rail lines, whereas Waitomo does not have an equivalent zone with General residential zone (being the most intensive residential zone) having a minimum lot size of 450m^2.

24. Ms Butler has helpfully clarified[14] that the lines within Waitomo District are the North Island Main Trunk line and there are no branch lines. The current rail volumes are 98 trains per week through the Waitomo District, including 6 scenic trains per week for the Northern Explorer. Rail volumes are expected to increase over the life of the Proposed Plan.

25. While Waitomo District clearly does not have the level of intensification of residential development that the towns in Waikato District does, I can appreciate the technical evidence of Dr Chiles which sets out a realistic range of sound level based on distances from a NZ train track:

Distance from track	Sound level
10 metres	71 dB $L_{Aeq(1h)}$
20 metres	68 dB $L_{Aeq(1h)}$

[13] Evidence of Pam Butler on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraphs 3.2-3.3.
[14] Ibid, paragraphs 3.2-3.3.

30 metres	66 dB $L_{Aeq(1h)}$
40 metres	64 dB $L_{Aeq(1h)}$
50 metres	62 dB $L_{Aeq(1h)}$
60 metres	60 dB $L_{Aeq(1h)}$
70 metres	59 dB $L_{Aeq(1h)}$
80 metres	58 dB $L_{Aeq(1h)}$
90 metres	56 dB $L_{Aeq(1h)}$
100 metres	56 dB $L_{Aeq(1h)}$

Table 1: Illustration of typical railway sound levels based on an assumption of approximately two freight train movements in a one-hour period, in a flat area without screening[15]

26. Dr Chiles set out that internal sound levels with windows ajar for ventilation will typically be around 15 dB less than the external levels set out above. Therefore a building 100 metres from a track with 56 dB $L_{Aeq(1h)}$ outside means there is still potential to exceed internal criteria of 35 and 40 dB $L_{Aeq(1h)}$.[16]

27. Based on this analysis, I consider that a 40m width for the Rail Corridor Noise Control Boundary is not sufficient and I recommend this is increased to 100m. I recommend the Rail Corridor Noise Control Boundary be mapped on the PDP maps for certainty.

28. According to Council's GIS, the following number of properties would be affected by a 100m corridor measured from the edge of the KiwiRail designation. The rows shaded blue are those most likely to have a sensitive land use and therefore be affected by the rule:

[15] Based on data summarised by Marshall Day Acoustics, and reproduced in the evidence of Dr Stephen Chiles.
[16] Appendix A to the evidence of Dr Stehen Chiles on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 5.7.

Zone	Number of properties affected
Residential Zone	143
Rural Lifestyle Zone	1
General Rural Zone	156
Rural Production Zone	5
Commercial Zone	77
Industrial Zone	68
Māori Purpose Zone	6
Future Urban Zone	3
Natural Open Space Zone	18
Open Space Zone	11

Transport Corridor Noise Rule

29. While both Ms Heppelthwaite and Ms Cowper supported the concept of the new Noise rule I recommended in my s42A report, their evidence sought further amendments. I have set out the changes sought in evidence and my recommendations below.

30. The first new rule was focused on construction of a new building containing a sensitive land use, however clause 1.b. erroneously retained references to alteration and change of use. I agree that this should be corrected.

31. The evidence sought inclusion of an additional clause 1.c. which requires a report to be submitted to the Council prior to occupation of the building demonstrating compliance with all of the mechanical ventilation system report requirements in Noise Table 2. I do not consider to be strictly

necessary as the whole rule (including tables) needs to be complied with in order to be a permitted activity. In just the same way as each building consent needs to prove compliance with all the standards (such as maximum height), a building consent would need to prove compliance with this rule in order to be deemed to be a permitted activity. Nevertheless in a belts and braces approach, I recommend inclusion of the additional clause.

NOISE-RX

Construction of a new building containing a sensitive land use within a State Highway or Rail Corridor Noise Control Boundary

1. Activity status: PER
   Activity-specific standards:
   a. New buildings are designed, constructed and maintained to ensure that any part of the building located within the State Highway or Rail Corridor Noise Control Boundary and containing an activity listed in NOISE Table 1:
      i. complies with the maximum future indoor design noise levels in NOISE Table 1 and meets the ventilation requirements in NOISE Table 2; or
      ii. is located so the nearest exterior façade of that part of the building is at least 50m from the formed carriageway of the State Highway and 50m from the formed railway track and there is a solid building, fence, wall or landform that blocks the line of sight from all parts of all windows and doors to that activity to:
         1. All parts of the formed carriageway of the State Highway.
         2. All points 3.8m directly above the formed railway track; or
      iii. is located so it can be demonstrated by way of prediction or measurement by a suitably qualified and experienced acoustic consultant that noise at all exterior façades of that part of the building will be no more than 15 dB above the relevant maximum indoor design noise levels in NOISE Table 1; or
      iv. accords with the construction schedule in NOISE Table 3 and meets the ventilation requirements in NOISE Table 2.
   b. Prior to the construction of any building to which this standard applies, a design report shall be submitted to the Council demonstrating compliance with the maximum indoor design noise levels specified in NOISE Table 1, applying the assumptions in NOISE-RX.2. Alternatively, the design report may be substituted with confirmation that the construction ~~or alteration of, or change of use within,~~ the building will meet the construction schedule requirements in NOISE Table 3.
   c. A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with all of the mechanical ventilation

system report requirements in NOISE Table 2.

2. Assumptions:
    a. For State Highways, the design road noise is to be based on measured or predicted external noise levels plus 3 dB.
    b. For the Rail Corridor:
        i. The source level for railway noise is 70 LA_{eq}(1h) at a distance of 12 metres from the nearest track; and
        ii. The attenuation over distance is:
            1. 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres; or
            2. As modelled by a Suitably Qualified and Experienced Acoustic Consultant using a recognised computer modelling method for freight trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.

3. Activity status where compliance not achieved: RDIS

Council's discretion is restricted to the following matters:

a. Adverse effects on health and amenity of people indoors within the Noise Control Boundary overlay.
b. Alternative options for building design or location that would achieve compliance with the standards in NOISE Table 1.
c. Adverse effects on the continuing operation of the State Highway network, or railway corridor as a result of non-compliance with the standards.
d. Any natural or built features of the site or surrounding area that will mitigate noise effects
e. The outcome of any consultation undertaken with NZTA or KiwiRail.

32. Turning to the second new rule, Ms Heppelthwaite noted that I had not used a consistent name for the overlay in clause 1.b which applies to alterations and additions. I agree that the name of the overlay needs to be consistent. I note that there may be limitations on the length of the name of this overlay in terms of what can be accommodated on the PDP maps and that the name may need to be shortened. Whatever the overlay is called will need to be used consistently for both the PDP maps and provisions.

33. The evidence sought the inclusion of two additional clause to the second rule which applies to alterations and additions. The clauses require:

a. Prior to the alteration, addition or change of use of an existing building to which this standard applies, submission of a design report to the Council demonstrating compliance with the maximum indoor design noise levels specified in NOISE Table 1, applying the assumptions in NOISE-RX.2; and

b. A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with all of the mechanical ventilation system report requirements in Noise Table 2.

34. While I am comfortable with the concept of the reports, I am concerned with the drafting contained in the evidence. The second rule applies to "alteration, addition or change of use of an existing building" yet the drafting of the two clauses does not limit compliance to just that part of the building being altered, added onto or changed in use. I therefore recommend modifying the text sought by Ms Cowper and Ms Heppelthwaite to narrow the application of the reporting requirements to just those areas of the building being altered, added to, or undergoing a change of use.

NOISE-RX

Alterations, additions or change in use of an existing building to add or increase a sensitive land use within a State Highway or Rail Corridor Noise Control Boundary

1. Activity status: PER
Activity-specific standards:
   a. The alteration, addition or change of use of an existing building does not increase the gross floor area of an activity listed within NOISE Table 1 within the State Highway or Rail Corridor Noise Control Boundary; or
   b. An internal alteration to an existing residential unit does not increase the total gross floor area of activities listed in NOISE Table 1 by more than $5m^2$ within each 10 year period from [operative date] within the State Highway ~~Noise Effects Area~~ or the Rail Noise ~~Effects Area~~ Control Boundary; or
   c. Other than internal alterations $5m^2$ or less within each 10 year period from [operative date] provided for in (b) above, the alteration, addition or change of use of an existing building increases the gross floor area of an activity listed within

Table 1 within the State Highway or Rail Corridor Noise Control Boundary, but the part of the building containing that activity:

i. Is designed, constructed and maintained to comply with the indoor design noise levels specified in NOISE Table 1 and meets the ventilation requirements in NOISE Table 2; or

ii. Is in a location where the nearest exterior façade of that part of the building is at least 50m from the formed carriageway of the State Highway and 50m from the formed railway track and there is a solid building, fence, wall or landform that blocks the line of sight from all parts of all windows and doors to that activity to:

1. All parts of the formed carriageway of the State Highway.
2. All points 3.8m directly above the formed railway track; or

iii. Is in a location where it can be demonstrated by way of prediction or measurement by a suitably qualified and experienced acoustic consultant that the noise at all exterior façades of that part of the building is no more than 15 dB above the relevant noise levels in NOISE Table 1; or

iv. Is designed, constructed and maintained in accordance with the construction schedule in NOISE Table 3 and meets the ventilation requirements in NOISE Table 2.

d. Prior to the alteration, addition or change of use of an existing building to which this standard applies, a design report shall be submitted to the Council demonstrating compliance with the maximum indoor design noise levels specified in NOISE Table 1 for that part of the building subject to this rule, applying the assumptions in NOISE-RX.2. Alternatively, the design report may be substituted with confirmation that the alteration, addition or change of use within the building will meet the construction schedule requirements in NOISE Table 3.

e. A commissioning report must be submitted to the Council prior to occupation of the building demonstrating compliance with all of the mechanical ventilation system report requirements in NOISE Table 2 for the area of the existing building that has been altered, added to or undergone a change of use.

2. Assumptions:

a. For State Highways, the design road noise is to be based on measured or predicted external noise levels plus 3 dB.

b. For the Rail Corridor:

i. The source level for railway noise is 70 LA_{eq}(1h) at a distance of 12 metres from the nearest track; and

ii. The attenuation over distance is:

1. 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres; or
2. As modelled by a Suitably Qualified and Experienced Acoustic Consultant using a recognised computer modelling method for freight

trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.

3. Activity status where compliance not achieved: RDIS
Council's discretion is restricted to the following matters:
    a. Adverse effects on health and amenity indoors of people within the Noise Control Boundary overlays
    b. Alternative options for building design or location that would achieve compliance with the standards in NOISE Table 1
    c. Adverse effects on the continuing operation of the State Highway network, or railway corridor as a result of non-compliance with the standards.
    d. Any natural or built features of the site or surrounding area that will mitigate noise effects.
    e. The outcome of any consultation undertaken with NZTA or KiwiRail.

35. Ms Cowper and Ms Heppelthwaite sought amendments to NOISE Table 2 to reflect that mechanical ventilation systems are only required where windows must be closed in order to achieve the indoor noise levels set out in NOISE Table 1. I recommend including the additional text, although I have modified the wording slightly to make it clearer.

NOISE Table 2: Mechanical ventilation system

Activity	Ventilation requirements (in the situations where windows must be closed to achieve indoor noise levels set out in NOISE Table 1)
Habitable rooms for a residential activity	a. Provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and b. is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour; and c. provides relief for equivalent volumes of spill air; and d. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and

	e. does not generate more than 35 dB LA_{eq}(30s) when measured 1 metre away from any grille or diffuser.
Other spaces	To be determined by a suitably qualified and experienced person.

36. Given the small scale and significance of my recommended further amendments to the provisions, I largely rely on the section 32AA evaluation appended to my s42A report. The additions to the recommended new rules set out a process for proving compliance with the standards. While there may be costs associated with the reports required, this is the most effective and efficient way to achieve the objectives of the PDP and the proposal. Acoustic provisions with multiple permitted activity pathways as proposed, are more efficient and effective than more limited pathways (the more restrictive alternative) or leaving the effects entirely unmanaged (the more permissive alternative). The recommended provisions will more effectively manage the potential for reverse sensitivity effects near regionally significant infrastructure, and thereby give effect to the relevant provisions of the Regional Policy Statement (**RPS**).

5. Rail vibration

5.1 Matters addressed in submitter evidence

37. KiwiRail [51.45] sought inclusion of a new rule managing vibration in any new buildings or alterations to existing buildings containing activities sensitive to noise within 60m of a rail network. In my s42A report, I recommended rejecting this on the basis there are very few meaningful or successful ways to reduce vibration generated from trains through construction techniques.[17]

38. Dr Chiles in his evidence on behalf of KiwiRail considered that the operation of the rail network can result in adverse effects which cannot be

[17] Section 42A report on Transport, Carolyn Wratt, 21 October 2024, paragraph 149.

completely internalised within KiwiRail's typical designation boundaries, such as noise and vibration. These effects commonly occur within the rail network subject to normal maintenance and cannot be solely attributed to defects in track or rolling stock. He noted that vibration varies significantly depending on ground conditions and localised features such as buried services and structures. Even with "good" ground, track and rolling stock conditions, there is still inherent vibration from railways that can cause disturbance to activities in proximity to the rail corridor. As these effects cannot be completely internalised within the rail corridor, he considered that there must be appropriate land use controls in place to manage sensitive development near these transport corridors.[18]

39. Technical evidence from Dr Chiles considered that vibration can have adverse health and amenity effects on people (100m or further from the rail corridor) that requires avoidance, remediation or mitigation under the RMA.

5.2 Analysis and recommendations

40. While Dr Chiles stated his continued support the inclusion of controls in the PDP for vibration[19], Ms Butler indicated that she would accept a 60m "Rail vibration alert overlay" instead of vibration controls.[20] This is an approach adopted by Waikato PDP as well as the recent decision on Plan Change 33 to the Tauranga District Plan and is therefore an approach I am very familiar with. As described by Ms Butler, this layer would apply to all properties within 60 metres on either side of the rail corridor designation boundary and is indicated on the PDP maps. There are no rules or provisions associated with it, and it is an information layer only. The purpose of the vibration alert layer is to signal to property owners that higher levels of vibration may be experienced in the area due to its proximity to the rail corridor. As it is only an information layer, there are no requirements on landowners although they may choose to adopt

[18] Evidence of Dr Stehen Chiles on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraphs 5.2-5.3
[19] Evidence of Dr Stehen Chiles on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 6.5.
[20] Evidence of Pam Butler on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 5.12

vibration attenuation measures of their own accord in construction or to locate new buildings outside the alert layer.[21]

41. This approach is pragmatic and is one I recommend adopting, particularly as there are no obligations on landowners. I therefore recommend that the PDP maps be amended to show a "Rail vibration alert overlay" for all land within 60m of the edge of the KiwiRail designation, with no amendments to provisions.

42. As set out in Ms Heppelthwaite's evidence[22], I support the explanation of the Rail vibration alert overlay being inserted into the Overview of the Noise chapter to provide clarity of the purpose of the overlay. I recommend amending her suggested wording as follows:

> A Rail Vibration Alert Overlay applies to the area within 60 metres each side of the railway designation boundary where vibration effects may be experienced from use and maintenance of the rail network. There are no provisions or restrictions which are associated with the Rail Vibration Alert Overlay; instead, it is intended to alert property owners of the potential for vibration effects.

6. Other Transport Provisions

6.1 TRAN-R14

43. KiwiRail's submission to TRAN-R14 sought to modify the heading from Rail level crossings (as notified) to Rail vehicle crossing setbacks and sightlines. In my s42A report, I recommended a further amendment of the heading to "Setbacks and sightlines near level rail crossing". Ms Heppelthwaite considered the heading of the rule could be further refined by replacing "near" with "for".[23] I have no objection to this minor amendment and therefore recommend that the heading for TRAN-R14 be:

[21] Evidence of Pam Butler on behalf of KiwiRail Holdings Ltd, 4 November 2024, paragraph 5.13.
[22] Evidence of Catherine Heppelthwaite on behalf of KiwiRail Holdings Ltd, 4 November 2024, page 20.
[23] Ibid, 4 November 2024, paragraph 6(m).

6.2 New policy in the Network Utilities chapter

44. Federated Farmers of New Zealand (**Federated Farmers**) [46.25] sought to include a new policy to require adverse effects from transportation activities on adjacent environments to be avoided, remedied or mitigated. Waka Kotahi [FS27.03] opposed this submission. After considering the submissions, in my s42A report I recommended including a new policy in the Network Utilities chapter that sought to manage the adverse effects of development of new land transport infrastructure.[24]

45. Ms Cowper considered that the policy was unnecessary as the existing policies in the Network Utility Chapter such as policy NU-P9 and NU-P10 gives direction on the management of adverse effects of network utilities, given that transport.[25] Ms Cowper considered that NU-P9.1 controls the height, bulk, location of network utilities to minimise any adverse effects on the anticipated outcomes for the receiving environments. She pointed to NU-P10 as intending to ensure the location, scale and operation of network utilities and their ancillary activities avoid, remedy, or mitigate adverse effects on nearby sensitive activities. She considered that if the policy was to be included, it is unlikely to have an impact on state highway as these are managed by a designation and are not subject to these provisions. She noted that NZTA has a responsibility to ensure that effects on neighbouring properties are appropriately managed for any new designation or upgrades to infrastructure within an existing designation and would fundamentally give effect to this policy sought by Federated Farmers.

46. From my experience, notices of requirement are assessed against the relevant objectives and policies in a district plan so this policy would be applicable to NZTA seeking a new designation.

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[24] Section 42A report on Transport, Carolyn Wratt, 21 October 2024, paragraphs 70-74.
[25] Evidence of Tayla Cowper on behalf of New Zealand Transport Agency Waka Kotahi, 4 November 2024, paragraphs 6.10-6.12

47. On the basis of Ms Cowper's evidence, I looked forensically at NU-PX, NU-P9 and NU-P10 to check the overlap between those policies. The policies address the following matters:

a. NU-P9 addresses adverse effects of network utilities *in all roads* and land not covered by any overlays. Two of the clauses in this policy are not relevant to land transport as clause (2) is about radiofrequency and electric and magnetic field, and clause (3) is about undergrounding of new electricity and telecommunications lines in Te Kuiti. New land transport infrastructure would only be covered by this policy if it was outside an overlay, in which case clause (1) would apply which seeks to control the height, bulk and location to minimise adverse effects on the anticipated outcomes for the receiving environment;

b. NU-P10 focuses on adverse effects on nearby sensitive activities; and

c. NU-PX seeks to manage the adverse effects of new land transport infrastructure.

48. I agree with Ms Cowper that because land infrastructure is a network utility, it will be covered by NU-P9 and NU-P10, however I consider that NU-PX addresses different matters. I consider there is an overlap between NU-PX.1 and NU-P9 and NU-P10 as follows however:

Parts of NU-PX	Cross over with NU-P9 and NU-P10
1. Considering the effects on the amenity values of the surrounding environment	There is overlap with NU-P9.1 which refers to any adverse effects on the anticipated outcomes for the receiving environment including the role, function, character and identified qualities of the zone or precinct.

1. Considering effects on public access	Not explicitly covered by other policies, but given it is new land transport perhaps it is superfluous.
1. Considering effects on the health and safety of people	NU-P10 seeks to avoid, remedy or mitigate adverse effects on nearby sensitive activities so this aspect is already covered.
2. Considering alternative sites, routes or methods.	Not addressed.
3. Limiting the presence and effects of the development of new land transport infrastructure within Outstanding Natural Features and Landscapes, Outstanding Natural Character, areas of significant natural areas, sites of historic heritage and sites and areas of significance to Māori to those which: a. have an operational or functional requirement for the location; and b. integrate design measures and management methods to mitigate adverse effects.	Not addressed as NU-P9 explicitly relates to infrastructure outside any overlays.

49. Having undertaken this assessment I consider there is value in NU-PX, although I partially agree with Ms Cowper and recommend deleting NU-PX.1 as follows.

NU-PX

Manage the adverse effects of the development of new land transport infrastructure on the physical and natural environment by:

~~1. Considering the effects on the amenity values of the surrounding environment, public access, and the health and safety of people when locating, designing and operating new transport infrastructure.~~

~~2~~ 1. Considering alternative sites, routes or methods.

~~3~~ 2. Limiting the presence and effects of the development of new land transport infrastructure within Outstanding Natural Features and Landscapes, Outstanding Natural Character, areas of significant natural areas, sites of historic heritage and sites and areas of significance to Māori to those which:

a. have an operational or functional requirement for the location; and

b. integrate design measures and management methods to mitigate adverse effects.

50. I have therefore included this recommended amendment in my section 32AA evaluation for Network Utilities.

7. Definitions associated with the National Grid

7.1 National Grid Yard

51. Horticulture NZ [27.09] sought that the definition of the National Grid Yard be reduced to 10m in any direction from a National Grid single pole or pi-pole. I invited Transpower to respond to this submission from a technical perspective,[26] and this was addressed by Ms Whitney in her evidence. She correctly noted that there are two elements to the National Grid Yard:

a. The setback from the support structures; and

b. The setback from the centreline of the conductor.

[26] Section 42A report for National Electricity and Gas Transmission, Carolyn Wratt, 21 October 2024, paragraph 88.

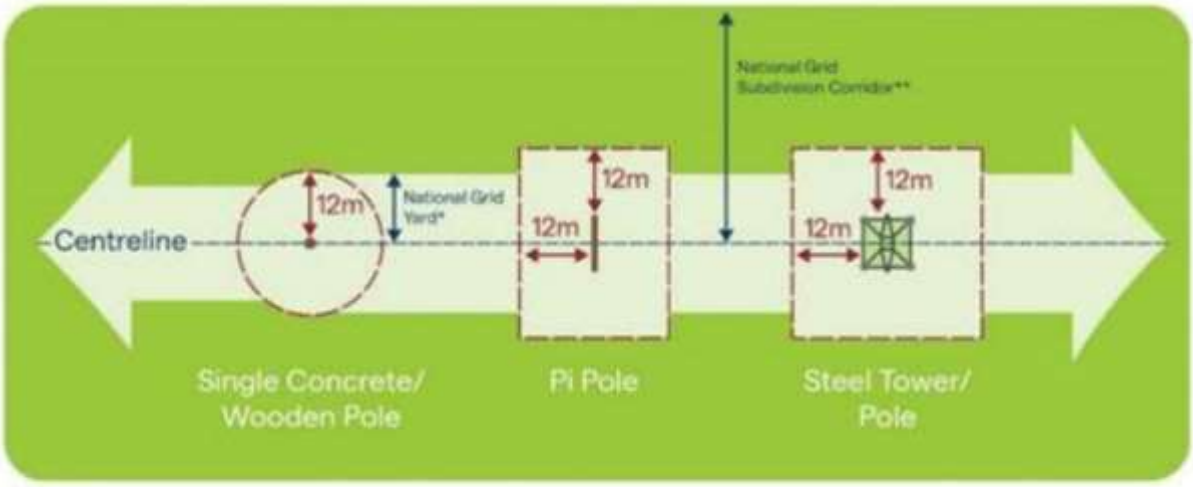
52. Starting with the setback from the support structure, Ms Whitney explained that the 12m setback primarily is intended to ensure access is maintained, the support structures are not themselves compromised, and that health and safety issues do not result. She considered that reducing the distance from the support structure does not allow sufficient space for access, operation, maintenance and development.[27] I can appreciate that reducing the distance from the support structures also poses a risk to the stability of the structures, and therefore has the potential to compromise the safety and integrity of the National Grid. Ms Whitney helpfully compared the approach of the PDP against other district plans around New Zealand and concluded that 12m is a common approach, with reduced distances for certain activities (including artificial crop protection support structures, fences or where Transpower has given written approval). This reflects the approach within the Waitomo PDP as provided in Rule NEGT-R2.1.(iii) and (iv).[28] Based on the information provided by Ms Whitney, I support retention of the 12m setback from the support structures.

53. Turning to the setback from the centreline, Ms Whitney explained that the setback from the centreline is determined by support structure type and voltage. She noted that while most of the support structures within the Waitomo district are towers, there are eight pi-poles and two poles. If the setback from the centreline was reduced to 10m for pi-poles and single poles, Ms Whitney calculated that it would only apply for a distance of 110m (the distance between the two assets) and the added complexity to the definition is not warranted given the confined application.[29] I agree, and recommend that the 12m setback from the centreline is retained in the definition of the National Grid Yard. I consider that a 12m setback more appropriately gives effect to the National Policy Statement for Electricity Transmission (NPSET) and the relevant provisions of the RPS.

54. Ms Whitney considered that interpretation and application of the definition could be improved by the replacement of the accompanying diagram

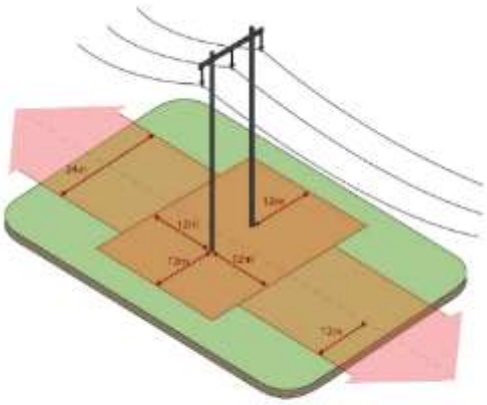
[27] Evidence of Pauline Whitney on behalf of Transpower New Zealand Limited, 4 November 2024, paragraph 8.4.2.
[28] Ibid, paragraph 8.4.2.
[29] Ibid, paragraph 8.4.2.

within the definition of National Grid Yard, and similar diagrams for the definition of National Grid Subdivision Corridor. I recommend replacing the diagrams with those in Ms Whitney's evidence on the basis that it improves clarity and interpretation of the provisions. For completeness, I have reproduced the diagrams below.

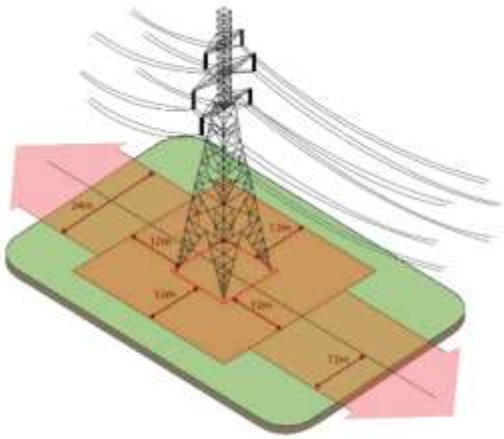


* National Grid Yard: 10m for single concrete/wooden pole lines, 12m for all other line types

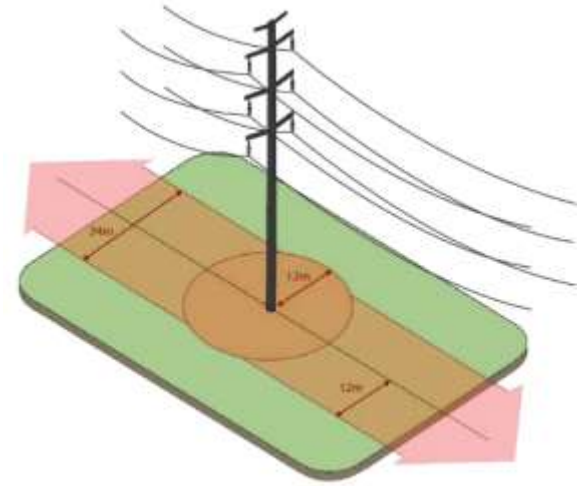
** National Grid Subdivision Corridor: 14m, 32m, 37m or 39m depending on line voltage



Pi-Pole



Steel Lattice Tower



Steel Tubular Tower

7.2 Transmission Sensitive Activity(ies)

55. Transpower NZ [31.12] sought to amend the definition to explicitly include childcare, and delete outdoor education activities and recreational hunting and other venues or areas where larger numbers of people are intermittent and in larger numbers than the general location or area. I agreed that these changes more accurately reflect activities that could be sensitive to transmission activities and recommended amendments to the definition accordingly.[30] As pointed out by Ms Whitney,[31] I erroneously recommended deleting "tourism facilities", when these should have been retained due to the potential for large numbers of people to congregate. This was an error, and I therefore recommend the following correction:

> Transmission sensitive activity(ies)
>
> means those activities that are particularly sensitive to national electricity and gas transmission activities, including but not limited to:
>
> (a) residential units and minor residential units, boarding houses, cohousing developments, compact housing developments, retirement villages, visitor accommodation, papakāinga units and papakāinga housing developments, residential based visitor accommodation, managed care facilities and other buildings used for residential activities;

[30] Section 42A report for National Electricity and Gas Transmission, Carolyn Wratt, 21 October 2024, paragraph 89.
[31] Evidence of Pauline Whitney on behalf of Transpower New Zealand Limited, 4 November 2024, paragraph 8.4.3.

(b) Camping grounds;

(c) Tiny houses and tiny house developments;

(d) Marae complex;

(e) Community facilities including museums and libraries;

(f) Educational facilities (including childcare facilities);

(g) Hospitals and healthcare facilities;

(h) Tourism facilities, ~~outdoor education activities and recreational hunting;~~

(i) Leisure and entertainment facilities, including shopping malls, indoor fitness centres, theatres and cinemas;

(j) Prisons;

(k) Any building storing hazardous substances, hazardous facilities, significant hazardous facilities and infrastructure (excluding those that are ancillary to national electricity and gas transmission activities); and

~~(l) Other venues or areas where large numbers of people gather or intermittently gather~~

8. National Grid Policies

8.1 Matters addressed in submitter evidence

56. NU-P22 is a policy specific to the development of the National Grid. Transpower [31.49] sought a number of amendments in its submission to NU-P22 and I recommended amendments in my s42A report.[32] In bringing across the changes from the Transpower submission, the incorrect clauses were struckthrough, a matter which Ms Whitney has observed in her evidence.

57. I recommend correcting this error as follows:

NU-P22

Provide for the development of the National Grid:

1. In urban zoned areas, development should minimise adverse effects on urban amenity and should avoid material adverse effects on the commercial zone, areas of high recreational or amenity value and existing sensitive activities; and

[32] Section 42A report for Network Utilities, Carolyn Wratt, 21 October 2024, paragraphs 138-146.

2. Seek to avoid the adverse effects of the National Grid within overlays, scheduled sites and features; and

3. Where the National Grid has a functional need or operational need to locate within the coastal environment, manage adverse effects by:

   (a) Seeking to avoid adverse effects on areas identified in SCHED6 - significant natural areas, SCHED7 - outstanding natural landscapes, SCHED8 - outstanding natural features, and SCHED10 – areas of outstanding natural character; and

   (b) Where it is not practicable to avoid adverse effects on the values of the areas in identified in SCHED6 - significant natural areas, SCHED7 - outstanding natural landscapes, SCHED8 - outstanding natural features, and SCHED10 – areas of outstanding natural character because of the functional needs or operational needs of the national grid, remedy or mitigate adverse effects on those values; and

   (c) Seeking to avoid significant adverse effects on:

      i. ~~SCHED11 – areas of high/very high natural character, SCHED9 – landscapes of high amenity value and SCHED12 – karst overlay~~ other areas of natural character in the coastal environment; and

      ii. ~~SCHED1 - heritage buildings and structures, SCHED2 – significant archaeological sites, SCHED3 and SCHED 4 – sites of significance to Māori~~ natural attributes and characteristics of other natural features and landscapes in the coastal environment; and

      iii. indigenous biodiversity values that meet the criteria in Policy 11(b) of the NZCPS 2010; and

      ~~iv. Avoiding, remedying or mitigating other adverse effects to the extent practicable; and~~

4. Avoiding, remedying or mitigating other adverse effects to the extent practicable; and

~~4.~~5. When considering the adverse effects in respect of NU-P22.1 - NU-P22.3 above:~~;~~

   (i) Have regard to the extent to which adverse effects have been avoided, remedied or mitigated by the route, site and method selection and techniques and measures proposed; and

   (ii) Consider the constraints arising from the operational needs and or functional needs of the National Grid, when considering measures to avoid, remedy or mitigate any adverse effects.

~~5.~~6. ~~Other than policies relating to the coastal environment,~~ in the event of any conflict with any other policies within the plan, NU-P20, NU-P21 and NU-P22 take precedence.

9. Telecommunications

58. The evidence from Mr Horne on behalf of the Telecommunications companies addressed four matters:

    a. Telecommunications equipment in roads within overlays [09.11, 09.15];

    b. Permitted activity status and standards for telecommunication poles and attached antennas in some zones where they currently require resource consent as a discretionary activity regardless of scale [09.16, 09.26];

    c. Coastal setbacks for telecommunications equipment in roads [09.19, 09.20]; and

    d. Earthworks controls for network utilities in Hazards Zones [09.08, 09.24].

59. I address each of these in turn.

9.1 Telecommunications equipment in roads covered by overlays

60. The submission from the Telecommunications companies sought that a permitted activity status be applied to NU-R15 where the road traverses an overlay. NU-R15 is the rule which applies to new underground network utilities and applies a largely permitted approach except in some overlays where a resource consent would be required. In my s42A report, I considered that the provisions make it clear that the activity status in the "road" column of the rule (which is permitted) overrides other columns which relate to overlays. Mr Horne was satisfied with this approach.[33]

61. The submission also sought that NU-R2 be exempt from the default DIS or RDIS status in overlays and scheduled sites and features listed in columns 3, 4 and 5 of the rule table for customer connections, cabinets in roads,

[33] Evidence of Chris Horne on behalf of the Telecommunications companies, 4 November 2024, paragraph 18.

and poles and antennas in roads (otherwise meeting NESTF Regulations 26-29) other than in an Outstanding Natural Feature. NU-R2 is the rule which manages:

a. telecommunications cabinets;

b. antennas;

c. small-cell units on existing structures; and

d. telecommunication lines underground, on the ground and overhead

that are in accordance with the National Environmental Standards for Telecommunication Facilities 2016 (**NESTF**). The activity status is permitted, unless the standards in the NESTF are not complied with, the activity is located in an overlay or the activity cannot comply with the Te Kūiti Aerodrome flightpath height restrictions.

62. Mr Horne considered the structure of this rule to be confusing as the "road" column states "see below" which does not assist users of the Plan. Mr Horne therefore assumes that the overlay rules in this case applies to the "roads" column.[34] I note this is a different approach to that of NU-R15 where structures in the road are not captured by the more restrictive activity status for overlays. Mr Horne considered this approach to be unnecessarily restrictive for cabinets, pole and antennas for this equipment in roads.

63. Mr Horne helpfully set out the size of structures enabled by the NESTF to give an idea of scale. The NESTF only enables small scale roadside equipment cabinets, and poles supporting antennas where the allowable scale is benchmarked to the scale of existing poles in roads such as light poles, with a narrow profile height extension provided for (3.5m height increase with all antennas contained within a 700mm wide x 3.5m high notional cylindrical envelope. He considered structures of this scale will have a very limited effect on overlays. I agree, but I am more mindful of

[34] Evidence of Chris Horne on behalf of the Telecommunications companies, 4 November 2024, paragraph 19.

internal consistency within the Plan. I cannot see the reason for allowing structures within the road in one rule (such as NU-R15) but then being more restrictive for telecommunication structures within the road in another rule (such as NU-R2). The approach of the Network Utilities chapter appears to accept that where there is an existing road or a road approved as part of a resource consent, any overlays will be disregarded. As Mr Horne correctly observed, roads are already modified corridors; a matter which the Network Utilities rules appear to acknowledge.

64. Mr Horne sought amendments to only apply restrictions to structures that meet these criteria:

a. permitted in the NESTF; and

b. located in the road; and

c. Outstanding Natural Features in all locations; or

d. Outstanding Natural Landscapes and Outstanding Natural Character in the Coastal Environment.

65. I looked through the Network Utility chapter to get a feel for the scale of other structures that are permitted in the road, regardless of whether an overlay applies:

a. NU-R7- New minor utility structures, including energy storage batteries, and telecommunication cabinets that are not regulated by NESTF;
b. NU-R11 - Electricity generators and self-contained power units for the supply of a network utility
c. NU-R12 - Temporary network utilities
d. NU-R19 - New overhead lines and associated equipment, poles or towers
e. NU-R20 - New substations, ground mounted transformers, compressor/scraper stations, gas regulation valves and/or take off stations and ancillary energy storage batteries
f. NU-R22 - New telecommunications kiosks

g. NU-R23 - Sensing and environmental monitoring equipment including air quality and meteorological equipment
h. NU-R29 - Streetlights within roads

66. While I appreciate that Mr Horne was being balanced in his requested changes, I consider his approach may be conservative when compared with the rest of the Network Utility rules which is enabling for network utilities located within roads. Given that the roads are already existing and the Network Utility rules appear to have disregarded the presence of an overlay for roads, I recommend that NU-R2 be amended so that structures permitted by the NESTF within the road reserve remain permitted in the PDP and that submission point [9.11] be accepted. I have attempted redrafting the rule below but, given the complexity of extracting the road environment from the rule, I would appreciate Mr Horne's feedback as to whether it achieves the intended outcome and is sufficiently clear:

NU-R2. National Environmental Standards for Telecommunication Facilities (NESTF) 2016

All roads and new roads approved as part of a resource consent
See below PER
NU-R2.1 to NU-R2.4 are permitted by NESTF where the relevant standards in NESTF are complied with and the activity is not located within overlays, scheduled sites and features: 1. Telecommunication cabinets (Regulation 19 to 25): ~~(i) In the road reserve~~ (ii) Outside the road reserve (iii) On buildings outside the road reserve 2. Antennas (Regulation 26 to 37): ~~(i) On existing poles in road reserve~~ ~~(ii) On new poles in road reserve~~ (iii) Replacement, upgrading and co-location of existing poles and antennas outside road reserve (with different conditions in residential and non-residential areas) (iv) New poles and antennas in general rural zone

(v) Antennas on buildings outside the road reserve (above a permitted height in residential areas)

3. Small-cell units on existing structures outside the road reserve (Regulation 38)

4. Telecommunication lines underground, on the ground and overhead outside the road reserve (Regulations 39 to 43)

NU-R2.5 to NU-R2.8 are permitted by NESTF in the road reserve where the relevant standards in NESTF are complied with:

5. Telecommunication cabinets (Regulation 19 to 25):
   (i) In the road reserve
   (ii) On buildings

6. Antennas (Regulation 26 to 37):
   (i) On existing poles
   (ii) On new poles
   (iii) Replacement, upgrading and co-location of existing poles and antennas (with different conditions in residential and non-residential areas)
   (v) Antennas on buildings (above a permitted height in residential areas)

7. Small-cell units on existing structures (Regulation 38)

8. Telecommunication lines underground, on the ground and overhead (Regulations 39 to 43)

RDIS: Where the standards in NESTF are not complied with unless the equivalent equipment not regulated by the NESTF is otherwise provided for as a permitted activity in the NU Rules (except for Reg 55 Radio Frequency which is NC in accordance with NESTF).
NC: Where the standards in NESTF are not complied with or the activity cannot comply with the Te Kūiti Aerodrome flightpath height restrictions.

9.2 Telecommunications poles and antennas in zones

67. The submissions from the Telecommunications companies addressed NU-R21 which relates to new telecommunication poles and new antennas attached to poles that are not a regulated activity under the NESTF, and its associated standards in NU-R48. The submissions sought the following amendments:

a. poles and attached antennas are a permitted activity in the Rural Residential Zone, Commercial Zone (COMZ) and Te Kuiti CBD Precinct PREC5. The activity status is currently discretionary; and

b. amend the height limits in the standard

   i. PREC5: 25m
   ii. COMZ: 20m
   iii. An additional 5m allowance above the maximum height limits where the antennas of two different operators are sited on the same pole.

68. Because new telecommunication poles and new antennas in the Rural Residential Zone, Commercial Zone (COMZ) and Te Kuiti CBD Precinct PREC5 are a discretionary activity, they do not have a maximum height limit in the standards in NU-R48.

69. Mr Horne considered that district plans typically provide for poles and antennas as permitted activities in commercial zones including town centres, and it appears out of step for resource consent to be required regardless of scale in these zones.[35] He considered that permitted activity status in commercial zones will incentivise using these zones rather than more sensitive areas such as residential zones. He noted that the Operative Waitomo District Plan allows telecommunications and radio communication masts, antennas and accessory structures up to 25m in height for the Business Zone.[36] He considered that a maximum height if 20m in the PREC5 Zone would be satisfactory as the CBD of Te Kuiti is not characterised by multistorey buildings.

70. Having considered Mr Horne's evidence, I am persuaded by the existing permitted activity status in the Operative District Plan and the scale of buildings in the Commercial Zone and Te Kuiti CBD (PREC5). I can see the value in enabling telecommunications poles and new antennae attached to

[35] Evidence of Chris Horne on behalf of the Telecommunications companies, 4 November 2024, paragraph 19.
[36] Evidence of Chris Horne on behalf of the Telecommunications companies, 4 November 2024, paragraph 32.

poles in locations where the most activity on the network it likely to be (i.e. the commercial zones). I do not support a more enabling activity status for the Rural Residential Zone however due to the character and purpose of that zone. I therefore recommend accepting in part the submission point [9.16].

71. Mr Horne observed that the NESTF note to column 2 of the rule table is confusing as it refers to the general rural zone only, whereas all rural zones including the rural production zone are defined as rural in the NESTF.

72. I have set out my recommended amendments below:

NU-R21.	**New telecommunication poles and new antennas attached to poles that are not a regulated activity under the NESTF**
Residential, future urban, rural lifestyle, settlement, ~~commercial,~~ Māori purpose, tourism, open space and natural open space zones, all precincts except PREC3 and PREC5	**Industrial, commercial, general rural and rural production zones, ~~and~~ PREC3 and PREC5**
DIS	**PER:** Industrial, and rural production zones and PREC3
	Refer to NESTF: ~~General~~ All rural zones

NU-R48.	**New telecommunication poles and new antennas attached to poles that are not a regulated activity under NESTF**

Industrial, general rural, ~~and~~ rural production, commercial zones, ~~and~~ PREC3 and PREC5	1. The maximum height of any pole must not exceed: a. Industrial, general rural, and rural production zones and PREC3: 25 m, except where the antennas of two different operators are sited on the same pole, the maximum height of that pole must not exceed 30 m; or b. Commercial zone and PREC5: 20m, except where the antennas of two different operators are sited on the same pole, the maximum height of that pole must not exceed 25 m; and 2. The pole must be located at least 20 m from an existing sensitive activity; and 3. The minimum setback from road boundaries, minimum setback from internal boundaries and height in relation to boundary standards for the relevant zone must be complied with; and 4. Panel antenna must not exceed a width of 0.8 m; and 5. Dish antennae must not exceed a diameter of 1.2 m; and 6. Omni directional 'whip' or dipole antennas must not exceed: (i) 1.6 m in vertical length; and (ii) 60 mm in diameter; and (iii) 1.5 m in horizontal length.	**Matters over which discretion is restricted:** (a) The technical, functional and operational needs of and benefits from the network utility and the works proposed; and (b) Whether the works will result in public health and/or safety risks; and (c) The scale of any structure and how it relates to the existing surroundings and the scale of structures anticipated in the zone; and (d) Effects on the coastline, water bodies and their margins; and (e) The effect on the safety and efficiency of the adjacent road network including intersections and proximity to existing driveways; and (f) The potential to contribute to cumulative adverse effects.

9.3 Coastal setbacks for telecommunications equipment in roads

73. Rule NU-R38 applies to new buildings adjacent to the open coast, and the submission from the Telecommunications companies sought amendments so that the 200m set back from the open coast does not apply to customer connections, and network utility structures in existing roads.

74. Rule NU-R39 applies to buildings adjacent to Kawhia Harbour or adjacent to a river in the coastal marine area. The submission from the Telecommunications companies sought that this rule does not apply to customer connections, and network utility structures in existing roads.

75. In my s42A report I recommended rejecting the submissions on the basis that the approach of these rules is consistent with the approach taken in Rule CEH-R1 of the Coastal Environment Chapter.[37] I invited further information as to why the customer connections and network utility structures in roads should not be subject to this requirement and Mr Horne has helpfully provided more information. The corporate evidence from the telecommunications companies is that district plans are not the place to regulate for a resilient telecommunications infrastructure when it is in coastal environments and settlements where there are existing networks and customers. In New Zealand, avoiding a natural hazard and other overlays area is not practical or possible for technical and operational reasons to service companies.[38] Mr Horne concurred with this position and accepted that while further development in coastal areas may be vulnerable to coastal hazards, network utilities such as telecommunications are not leading development to these areas, they are providing service to communities that already exists. He considered that network utility operators can make their own risk assessment about how to provide service to these existing communities and did not consider it necessary or efficient for the district plan to regulate these types of structures to serve existing development.

76. While I can appreciate that network utility operators make informed decisions about the location of their structures and can design the structures to be resilient to natural hazards, I also appreciate the importance of retaining telecommunications to these often remote communities particularly in natural disaster events. Mr Horne pointed out that Regulation 57 of the NESTF disapplies district plan natural hazard rules to regulated equipment under so much of the equipment telecommunications operators may seek to deploy would not be subject to these rules in any case.[39] I understand the comments in the corporate

[37] Section 42A report for Network Utilities, Carolyn Wratt, 21 October 2024, paragraph 332.
[38] Corporate evidence on behalf of the Telecommunication companies, 4 November 2024, paragraph 6.6.
[39] Evidence of Chris Horne on behalf of the Telecommunications companies, 4 November 2024, paragraph 43.

evidence that the existing road environments are already established as essential infrastructure corridors and have been previously disturbed and visually impacted by roading, electricity and telecommunications networks[40]. However I consider the key effect is not visual but more about exposing critical infrastructure to natural hazard risks and the consequences of network utility structures being affected by natural hazards. After considering the evidence, I consider that the importance of network utilities structures warrants a restricted discretionary activity status in these high hazard areas, being open coast, Kawhia harbour or a river in the coastal marine area (NU-38 and NU-39). The resource consent process means that Council can assess the resilience of the structure to natural hazards and its proposed location. I therefore continue to recommend rejecting the submission points from the Telecommunications companies on this matter.

77. In my 242A report I recommended including a new policy which enables network utilities in natural hazard overlays that:

    a. Do not increase the risk from the natural hazard to people, other property or other infrastructure;
    b. Have a functional need or operational need to be located within the area subject to the hazard; and
    c. Where necessary and appropriate include design measures to reduce the potential for damage in a natural hazard event.

78. I consider this provides the policy framework support for a network utility structure proposed to be located near the open coast, Kawhia harbour or a river in the coastal marine area via a restricted discretionary consent path.

79. In looking at these rules more critically, I note an inconsistency between the heading which refers to "building" and the rule which refers to

[40] Corporate evidence on behalf of the telecommunication companies, 4 November 2024, paragraph 7.2.

"structures". I recommend the heading of the rules be amended as follows:

NU-R38.	New ~~buildings~~ structures adjacent to the open coast
NU-R39.	~~Buildings~~ structures adjacent to Kawhia harbour or adjacent to a river in the coastal marine area

9.4 Earthworks in hazard areas

80. The submissions from the Telecommunications companies sought inclusion of a new policy which enables network utilities in natural hazard overlays, and an additional clause to NU-R45. NU-R45 sets out the standards for earthworks in a hazard area or coastal hazard area and limits earthworks in terms of volume, height and depth.

81. Mr Horne supported the new policy I recommended including to enable network utilities in natural hazard overlays. He expressed concern at the volume thresholds for earthworks in NU-R45. Based on projects he has been involved in, he considered that the 0.5m depth allowance will be problematic for business-as-usual pole foundations. The corporate evidence illustrated typical pole foundation designs that may include 1.5m deep pad foundations or pile foundations that are 6m or deeper depending on ground conditions.

82. In my s42A report I recommended rejecting the submission point on the basis of consistency with the equivalent rules in Chapter 23 Natural Hazards and Chapter 32 Coastal Environment. Having considered Mr Horne's evidence, I can appreciate that increased depth of earthworks in the Flood and Coastal Hazard Areas associated with a telecommunications pole and attached equipment will not exacerbate the risk to the structure or the effects in a natural hazard event. I therefore recommend submission point [9.24] be accepted in part and NU-R45 be amended as follows:

NU-R45.	**Earthworks in a hazard area or coastal hazard area**

All zones, all roads, all overlays, scheduled sites & scheduled features	1. The maximum volume of filling above natural ground level must not exceed 20 m^3 per site and or exceed a maximum cumulative volume of filling and excavation of 50 m^3 per site; and 2. Earthworks must not exceed a maximum height of 0.2 m of filling above natural ground level; and 3. Earthworks must not exceed a maximum depth of excavation of 0.5 m below natural ground level. The maximum depth of excavation shall not apply to network utility poles in Flood and Coastal Hazard Areas.	**Matters over which discretion is restricted:** (a) The location, timing, design and density of soil disturbance and vegetation removal activities and proposed rehabilitation/mitigation measures; and (b) The functional and operational need to locate in a hazard area or coastal hazard area and the consideration of alternative locations; and (c) Whether the earthworks would create new or exacerbate existing natural hazards; and (d) Effects on existing overland flow paths, surface drainage patterns, flood storage capacity and runoff volumes; and (e) Effects on adjoining properties and infrastructure, including the transfer of risk from the hazard; and (f) Where relevant, effects on the values and characteristics of any overlay, scheduled site or feature; and (g) The findings of any site-specific hazard assessment undertaken by an appropriately qualified and experienced person; and (h) Consideration of the projected effects of climate change.

10. Conclusion

83. I would like to thank the submitters and experts for their clear and concise evidence and look forward to further discussion through the course of the hearing. In particular I would like to recognise the collaboration between Ms Butler, Ms Heppelthwaite, Dr Chiles and Ms Cowper. Being able to consider provisions that were agreed between NZTA and KiwiRail was very helpful.

APPENDIX 1 NETWORK UTILITIES CHAPTER

APPENDIX 2 TRANSPORT CHAPTER

APPENDIX 3 SECTION 32AA EVALUATION

Introduction

This section 32AA evaluation relates to the recommended amendments following consideration of the evidence filed on behalf of submitters.

A section 32AA evaluation is only required for changes recommended since notification; if there is no change to the notified version, a section 32AA evaluation is not required. The level of detail in this report needs to be at a level of detail that corresponds to the scale and significance of the changes recommended.

Format of the report

The section 32AA evaluation report is structured in a similar order to the topics in this supplementary s42A report to enable the reports to be read together. In accordance with the requirements of section 32, the tests for objectives are different from provisions.

The matters addressed by this s32AA evaluation report are:

1. Inclusion of a Rail Vibration Alert Overlay in the Plan and extension of the Rail Noise Effects Control from 40m to 60m

2. Amendments to NU-R2 to enable a permitted activity status for telecommunications structures within the road

3. Amendments to NU-R21 and NU-R48 to enable new telecommunication poles and new antennas attached to poles in the commercial zone and PREC5 as a permitted activity

4. Enable an increased depth of earthworks for network utility poles in Flood and Coastal Hazard Areas (NU-R45)

5. Policies for the National Grid (NU-P22)

6. Policy for new land transport (NU-PX)

Inclusion of a Rail Vibration Alert Overlay

Appropriateness of Objectives

The objective of the proposal is to manage noise and vibration for land and buildings in close proximity to the rail corridor, thereby minimising the noise and vibration effects as well as reverse sensitivity.

Evaluation of objectives	
Part 2 RMA	**Comment**
Section 5 Purpose	The North Island Main Trunk rail consists of the physical structures that provide essential transport for people and goods through the District. The recognition and protection of the rail network as a physical resource is critical to the District's economic productivity, environmental outcomes and wellbeing of the community. The benefits of this infrastructure to the functioning of the district are therefore substantial. A secure and reliable rail network is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing. The recognition and protection of the rail network is fundamental to both present and future communities. In this respect the objective of the proposal achieves this part of Section 5 (s5(2)(a)) sustain the potential of natural and physical resources to meet needs of future generations). It also achieves Section 5(2) which seeks to enable people and communities to provide for their social, economic and cultural well-being. While the rail network can have significant local, regional and national benefits, it is recognised that the nature of the rail network generates adverse environmental effects – particularly noise and vibration. There is therefore the potential for some activities undertaken in the vicinity of the rail lines to lead to adverse reverse sensitivity effects on the lawful operation of existing infrastructure. Protecting the rail network from

Evaluation of objectives	
Part 2 RMA	**Comment**
	reverse sensitivity issues also ensure the health and safety of people and communities in accordance with Section 5(2) of the Act. This Objective is consistent with and achieves Section 5(2)(c) of the RMA.
Section 7 Other matters	Section 7(b) the efficient use and development of natural and physical resources: the objective of the proposal will achieve this by enabling efficient and full use of the rail network for the transport of people and goods. Section 7(c) the maintenance and enhancement of amenity values: Minimising the effect of noise and vibration generated from use of the rail network will result in a more liveable, pleasant environment for dwellings. For other sensitive uses, it means that they will not be disturbed by noise generated by use and maintenance of the rail network.

Identification of Options to Achieve the Objective

The following reasonably practicable options have been identified to achieve the objective.

Option 1 – Do not include a Rail Vibration Overlay in the PDP

Option 2 – Include a Rail Vibration Overlay in the PDP as an information layer

Option 3 – Include a Rail Vibration Overlay in the PDP with construction requirements to mitigate against vibration

Option 4 - Introduce the provisions sought by KiwiRail in its submission by applying a 100m corridor around the rail line

KiwiRail sought rules requiring acoustic insulation within 100m of the rail lines and to achieve an internal noise level of 35dBA.

Option 5 – Introduce the provisions sought by KiwiRail in its submission but reducing the width of the corridor to 40m around the rail line

Preferred Option

A combination of Option 2 and Option 5 is the preferred approach as it strikes a balance between effectively reducing the internal noise of buildings where sensitive activities occur, while not adding significant cost to landowners. It recognises that there are limited ways in which to effectively mitigate vibration.

Evaluation of Preferred Option Against Objective

This section contains an evaluation of the preferred option identified above.

Evaluation of Preferred Option Against Objective(s)		
	Costs	**Benefits**
Environmental	No environmental costs are identified for this option.	No environmental benefits are identified for this option.
Economic	Adds cost to new buildings and additions. The overlays may reduce the value of properties.	Protects the rail from potential reverse sensitivity effects.
Social	No social costs are identified for this option.	Results in a quieter home. Results in less internal noise for noise sensitive activities. Alerts landowners to potential vibration effects.

Cultural	No cultural costs are identified for this option.	Results in less internal noise for Marae and kura. Results in quieter papakāinga.
Economic growth provided or reduced	There may be modest increased demand for suppliers of acoustic insulation, and acoustic specialists.	
Employment opportunities	This option is unlikely to result in additional employment opportunities.	
Uncertain or insufficient information	There is sufficient information to support the proposed changes.	
Risk of acting or not acting	There is sufficient information to act.	
Effectiveness		
Inclusion of the new acoustic provisions in the NOISE chapter and the noise control boundary mapping will support an efficient outcome as the provisions address health and amenity effects and minimise reverse sensitivity effects which, if not addressed, could lead to the inefficient operation of nationally significant infrastructure. The mapping of the Rail Vibration Overlay will be effective in altering landowners to potential vibration effects arising from use of the rail network.		
Efficiency		
The activities captured by the new NOISE rule (being new buildings containing sensitive land uses) have four pathways to comply with the permitted activity rule. The activities captured by the new rule have the same pathways plus an additional two pathways to recognise that minor changes to existing buildings do not always increase the risk of adverse health and amenity effects for users of those buildings, and that the rules should be targeting alterations of buildings that do increase those risks.		

Where compliance is not achieved via the permitted activity pathways, a restricted discretionary activity consent is required, with the matters of discretion appropriately focussing the resource consent application on the relevant effects and potential site-specific responses. The provisions enable development as a permitted activity and therefore is an efficient approach.
Summary
Acoustic provisions with multiple permitted activity pathways, as proposed, are more efficient and effective than more limited pathways (the more restrictive alternative) or leaving the effects entirely unmanaged (the more permissive alternative). The recommended provisions will more effectively manage the potential for reverse sensitivity effects near regionally significant infrastructure, and thereby gives effect to the RPS.

Telecommunications structures

Appropriateness of Objectives

The objective of the proposal is to enable telecommunications structures.

Evaluation of objectives	
Part 2 RMA	**Comment**
Section 5 Purpose	Telecommunication structures are essential for the social, economic and cultural wellbeing of the community as they support communication between people. IT networks also require telecommunication networks to access and store data. The approach of enabling telecommunication structures within the existing road corridor and commercial zone achieves s5(c) of the Act by focusing the structures into an already highly-modified environment. It therefore reduces effects on other parts of the District.
Section 6 Matters of national importance	Section 6 matters are relevant because the objective enables telecommunication structures potentially in areas where an overlay applies. Overlays are the PDP response to s6 matters.
Section 7 Other matters	Section 7(b) the efficient use and development of natural and physical resources: the objective of the proposal will achieve this by enabling efficient and full use of the existing road corridor for further network utility structures. Section 7(c) the maintenance and enhancement of amenity values: Maximising use of the existing road corridor for network utility structures, will reduce the need for network utility structures in more sensitive environments, and thereby maintain amenity.

This is considered the most appropriate objective to meet the purpose of the Act.

Identification of Options to Achieve the Objective

The following reasonably practicable options have been identified to achieve the objective.

Option 1 – Retain the notified version of NU-R2, NU-R21 and NU-R48

Option 2 – Enable telecommunications structures in the road reserve, except in Outstanding Natural Features in all locations, and Outstanding Natural Landscapes and Outstanding Natural Character in the Coastal Environment (as sought in Mr Horne's evidence)

Option 3 – Enable telecommunications structures in the road reserve irrespective of the presence of overlays

Option 4 - Enable new telecommunication poles and new antennas attached to poles in the commercial zone and PREC5 as a permitted activity

Option 5 - Enable new telecommunication poles and new antennas attached to poles in the commercial zone, rural residential zone PREC5 as a permitted activity (as sought in Mr Horne's evidence)

Preferred Option

A combination of Options 3 and 4 are preferred. The notified version of the Network Utility chapter is more enabling of network utilities in the existing road and new roads approved as part of a resource consent. The instructions above NU-Table 1 states:

> For the purposes of this chapter, irrespective of whether a scheduled site, feature or overlay is shown on the planning maps, the only column in the tables below that applies to roads is labelled "All roads and new roads approved as part of a resource consent".

Option 3 applies this approach consistently.

Option 3 and 4 requires the following amendments:

- Amendments to NU-R2 to enable a permitted activity status for telecommunications structures within the road; and
- Amendments to NU-R21 and NU-R48 to enable new telecommunication poles and new antennas attached to poles in the commercial zone and PREC5 as a permitted activity.

Evaluation of Preferred Option Against Objective

This section contains an evaluation of the preferred option identified above.

Evaluation of Preferred Option Against Objective(s)		
	Costs	**Benefits**
Environmental	There may be effects associated with telecommunications structures including visual and noise. Increases visual clutter within the road reserve. Is an obstacle that may be hit by vehicles. May increase the visual clutter in the commercial zone and PREC5.	It encourages telecommunications structures into an already highly modified environment, thereby preserving the character and amenity of other parts of the District.
Economic	No economic costs are identified for this option.	Enables easy access for the installation and maintenance. Supports the strength and coverage of the telecommunications network which has economic benefits. Reduced cost for telecommunications companies
Social	No social costs are identified for this option.	Supports the strength and coverage of the telecommunications network which has social benefits.

Cultural	No cultural costs are identified for this option.	No cultural benefits are identified for this option.
Economic growth provided or reduced	While additional telecommunication structures and coverage supports economic growth, it does not create economic growth.	
Employment opportunities	This option is unlikely to result in additional employment opportunities.	
Uncertain or insufficient information	There is sufficient information to support the proposed changes.	
Risk of acting or not acting	There is sufficient information to act.	

Effectiveness

Option 3 is the most effective option as it does not unreasonably restrict the placement of telecommunications structures.

Efficiency

Option 3 is the most efficient option as it enables development of the telecommunication network without the need for resource consent. The NESTF limits the size and form of the structures.

Summary

Option 3 and 4 are the most effective and efficient options for achieving the objectives of the proposal. This approach will assist in achieving the following objective of the PDP:

NU-O1. Effective, resilient, efficient and safe network utilities

The recommended approach will:

1. enable essential and secure services, including in emergencies;
2. facilitate local, regional, national, or international connectivity;
3. contribute to the economy;
4. integrate with development, infrastructure and other activities; and

5. enable people and communities to provide for their health, safety and wellbeing by enabling connectivity.

Enable an increased depth of earthworks for network utility poles in Flood and Coastal Hazard Areas (NU-R45)

Appropriateness of Objectives

The objective of the proposal is to enable installation of network utility poles.

Evaluation of objectives	
Part 2 RMA	**Comment**
Section 5 Purpose	Network utility poles are essential for the social, economic and cultural wellbeing of the community. Poles are used to support electricity and telecommunication lines primarily which are critical to the District's economic productivity, environmental outcomes and wellbeing of the community. The benefits of infrastructure to the functioning of the district are therefore substantial. Connected and reliable infrastructure is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing in accordance with Section 5(2) of the Act. The efficient development of the physical resources of infrastructure is fundamental to both present and future communities. In this respect the Objective achieves Section 5(2)(a) of the Act. This is considered the most appropriate objective to meet the purpose of the Act.
Section 6 Matters of	Section 6(h) is relevant as the objective of the proposal relates to the natural hazard overlays.

Evaluation of objectives	
Part 2 RMA	**Comment**
national importance	

Identification of Options to Achieve the Objective

The following reasonably practicable options have been identified to achieve the objective.

Option 1 – Retain the notified version of NU-R45 which limits earthworks in natural hazard overlays

Option 2 – Amend NU-R45 to not limit the depth of earthworks for network utilities in all hazard overlays

Option 3 – Enable a greater depth for earthworks for network utilities in all hazard overlays

Option 4 - Amend NU-R45 to not limit the depth of earthworks for network utilities in Flood and Coastal Hazard Areas

Preferred Option

Option 4 is the preferred option. The depth of earthworks in the Flood and Coastal Hazard Areas associated with a telecommunications pole and attached equipment will not exacerbate the risk to the structure or the effects in a natural hazard event. Option 2 is not preferred as there are land instability overlays, and an unlimited depth may exacerbate instability.

Evaluation of Preferred Option Against Objective

This section contains an evaluation of the preferred option identified above.

Evaluation of Preferred Option Against Objective(s)		
	Costs	**Benefits**
Environmental	No environmental costs are identified for this option.	No environmental benefits are identified for this option.
Economic	No economic costs are identified for this option.	Reduced cost for telecommunications companies as there is no need for resource consent where poles are needed to be deeper than 0.5m
Social	No social costs are identified for this option.	Supports the development of network utility structures in flood and coastal hazard areas to support those communities.
Cultural	No cultural costs are identified for this option.	No cultural benefits are identified for this option.
Economic growth provided or reduced	While additional network utilities structures supports economic growth, it does not create economic growth.	
Employment opportunities	This option is unlikely to result in additional employment opportunities.	
Uncertain or insufficient information	There is sufficient information to support the proposed changes.	
Risk of acting or not acting	There is sufficient information to act.	
Effectiveness		
Option 4 is the most effective option as it does not unreasonably restrict depth of poles in the flood and coastal hazard overlays.		
Efficiency		

Option 4 is the most efficient option as it enables development of the network utilities networks without the need for resource consent. The NESTF limits the size and form of the structures for telecommunications structures.

Summary

Option 4 is the most effective and efficient option for achieving the objectives of the proposal. This approach will assist in achieving the following objective of the PDP:

NU-O1. Effective, resilient, efficient and safe network utilities

The recommended approach will:

1. enable essential and secure services, including in emergencies;
2. facilitate local, regional, national, or international connectivity;
3. contribute to the economy;
4. integrate with development, infrastructure and other activities; and
5. enable people and communities to provide for their health, safety and wellbeing by enabling connectivity.

NH-O1. Ensure that communities are resilient to the risks that natural hazards pose on people, property, infrastructure and the environment by providing for subdivision, use and development of land only where these risks are avoided or appropriately mitigated.

National Grid Policy (NU-P22)

Appropriateness of Objectives

The objective of the proposal is to provide for the development of the National Grid in a way which gives effect to the higher order documents and manages any tension between them.

Evaluation of objectives	
Part 2 RMA	**Comment**
Section 5 Purpose	The National Grid consists of the physical structures and networks that support and provide essential electricity to the communities of the district. The recognition and protection of the National Grid as a physical resource is critical to the District's economic productivity, environmental outcomes and wellbeing of the community. The benefits of this infrastructure to the functioning of the district are therefore substantial. A secure and reliable electricity supply is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing. The recognition and protection of the National Grid is fundamental to both present and future communities. In this respect the Objective achieves this part of Section 5 (s5(2)(a)) sustain the potential of natural and physical resources to meet needs of future generations). It also achieves Section 5(2) which seeks to enable people and communities to provide for their social, economic and cultural well-being. While the National Grid can have significant local, regional and national benefits, it is recognised that the nature of the National Grid generates adverse environmental effects. These effects may result from activities involved in establishing the infrastructure or be associated with the maintenance and operation of the infrastructure. Such activities may

Evaluation of objectives	
Part 2 RMA	**Comment**
	adversely affect landscape values, ecological resources, indigenous vegetation, amenity, streetscape, and public health and safety.

Identification of Options to Achieve the Objective

The following reasonably practicable options have been identified to achieve the objective.

Option 1 – Retain the notified policy

Option 2 – Insert exclusions for the National Grid in policies throughout the Plan that do not give effect to the NPSET

Option 3 – Insert clauses specifically for the National Grid in all policies

Option 4 - Amend NU-R22 which is specific to the National Grid and manages adverse effects

Preferred Option

Option 4 is the preferred option. It sets out a clear policy framework for the development of the National Grid that gives effect to the NPSET, whilst managing any tension between the higher order planning documents.

Evaluation of Preferred Option Against Objective

This section contains an evaluation of the preferred option identified above.

Evaluation of Preferred Option Against Objective(s)		
	Costs	**Benefits**

Environmental	No environmental costs are identified for this option.	Significant adverse effects are avoided for areas of natural character in the coastal environment and natural attributes and characteristics of other natural features and landscapes in the coastal environment.
Economic	No economic costs are identified for this option.	No economic benefits are identified for this option.
Social	No social costs are identified for this option.	No social benefits are identified for this option.
Cultural	No cultural costs are identified for this option.	No cultural benefits are identified for this option.
Economic growth provided or reduced	While the National Grid supports economic growth, it does not create economic growth.	
Employment opportunities	This option is unlikely to result in additional employment opportunities.	
Uncertain or insufficient information	There is sufficient information to support the proposed changes.	
Risk of acting or not acting	There is sufficient information to act.	
Effectiveness		
The amended policy will be highly effective in achieving Objective NU-O2 and NU-O3, by avoiding remedying or mitigating adverse effects, but in a way that recognises the national significance of the National Grid. The policy will give effect to the NPSET.		
Efficiency		

The benefit of the new policy is that it will enable Transpower to have a clear policy framework to assess adverse effects of activities associated with the National Grid. It will also result in reduced costs associated with consenting or designations by focusing on relevant policies. The other significant benefit is simplicity of the Plan by having a single comprehensive policy. There are no costs.
Summary
Having considered the costs and benefits, the benefits outweigh the costs and the new policy will be effective in achieving NU-O2 and NU-O3 of the Plan.

New land transport infrastructure (NU-PX)

Appropriateness of Objectives

The objective of the proposal is to include a policy framework for managing the adverse effects of development of new land transport infrastructure.

Evaluation of objectives	
Part 2 RMA	**Comment**
Section 5 Purpose	The transport network consists of the physical structures and networks that support and provide essential connections to the communities of the district. Recognising the need to develop, operate and maintain the transport network is critical to the District's economic productivity, environmental outcomes and wellbeing of the community. The benefits of this infrastructure to the functioning of the district are therefore substantial. A connected and reliable transport network is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing in accordance with Section 5(2) of the Act. The recognition of the need to develop the transport network (in all its forms and modes of transport) is fundamental to both present and future communities. In this respect the Objective achieves the part of Section 5(2)(a) which seeks to sustain the potential of natural and physical resources to meet needs of future generations. This is considered the most appropriate objective to meet the purpose of the Act.
Section 6 Matters of	Section 6 is relevant as the development of the land transport network has the potential to adversely affect areas identified for protection, such

Evaluation of objectives	
Part 2 RMA	**Comment**
national importance	as significant natural areas or outstanding natural landscapes and features.

Identification of Options to Achieve the Objective

The following reasonably practicable options have been identified to achieve the objective.

Option 1 – Retain the policies as notified

Option 2 – Include a new policy to guide new land transport infrastructure

Preferred Option

Option 2 is the preferred option. It sets out a clear policy framework for the development of the land transport infrastructure, whilst giving effect to the RPS.

Evaluation of Preferred Option Against Objective

This section contains an evaluation of the preferred option identified above.

Evaluation of Preferred Option Against Objective(s)		
	Costs	**Benefits**
Environmental	There may be adverse effects on Outstanding Natural Features and Landscapes, Outstanding Natural Character, areas of significant natural areas, sites of historic heritage and sites and areas of significance to Māori	Ensure that adverse effects on these overlays are limited.

Economic	Additional costs associated with satisfying this policy	Economic benefits associated with a resilient and well-connected land transport network
Social	No social costs are identified for this option.	Economic benefits associated with a resilient and well-connected land transport network
Cultural	There may be cultural costs where a new road is proposed through sites and areas of significance to Māori	No cultural benefits are identified for this option.
Economic growth provided or reduced	While the transport network supports economic growth, it does not create economic growth.	
Employment opportunities	This option is unlikely to result in additional employment opportunities.	
Uncertain or insufficient information	There is sufficient information to support the proposed changes.	
Risk of acting or not acting	There is sufficient information to act.	
Effectiveness		
The amended policy will be highly effective in providing a policy pathway for ensuring the adverse effects of new land transport infrastructure are considered.		
Efficiency		
The benefit of the new policy is that it will establishes a clear policy framework to assess adverse effects of new land transport infrastructure.		
Summary		

Having considered the costs and benefits, the benefits outweigh the costs and the new policy will be effective in achieving NU-O1, NU-O2 and NU-O4 of the Plan.