**BEFORE WAITAKI DISTRICT COUNCIL**

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| **IN THE MATTER OF** | the Resource Management Act 1991 |
| **AND** | |
| **IN THE MATTER OF** | Waitaki District Council's Proposed District Plan: Hearing Stream 2 – Energy, Infrastructure, Stormwater, Transport, Earthworks and Designations |

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# STATEMENT OF EVIDENCE TOM ANDERSON

# ON BEHALF OF

# CHORUS NEW ZEALAND LIMITED, CONNEXA LIMITED, FORTYSOUTH GROUP LP AND SPARK NEW ZEALAND TRADING LIMITED

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**14 September 2026**

## SUMMARY STATEMENT

i. My name is Tom Anderson. I am a Principal Planner and a Director of Incite, a resource management consulting firm. My qualifications and experience are set out in my evidence in chief in this statement.

ii. I have read and am familiar with the Code of Conduct for Expert Witnesses (section 9 of the Environment Court Consolidated Practice Note 2023). My evidence has been prepared in compliance with that code.

iii. Chorus, Connexa, FortySouth and Spark (the telecommunication companies) lodged submissions on the Proposed Waitaki District Plan (PDP).

iv. 67 of the submission points are addressed in Hearing Stream 2, five in the Earthworks Section 42A (S42A) Report, one in each of the Transport and Stormwater S42A Reports, and the remainder in the Infrastructure S42A Report. I agree with the Council officer recommendations on all matters considered in the Earthworks, Transport and Stormwater S42A Reports, and on 50 of the 60 of the submission points considered in the Infrastructure S42A Report.

v. Of the 10 matters which remain in contention for the hearing, six relate to alignment between the PDP and the very recent (10 September 2026) update to the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2026 (NESTF 2026). The NESTF 2026 has wider application than the activities regulated under the NESTF 2016, and as such has alignment implications on INF-R13, INF-R15, INF-R21, INF-S2, INF-S5 and INF-S10.

vi. The other matters which I consider remain in contention is:

- how the Infrastructure chapter interacts with other provisions in the PDP (introduction to infrastructure chapter – Submission Point 244.34);
- the appropriateness of wording in INF-P11 regarding how infrastructure interacts with heritage and cultural values (submission point 244.45);
- Ensuring INF-R10 continues to provide as a permitted activity, the undergrounding of infrastructure in all zones and overlays (submission Point 244.57); and

- Whether INF-R23 should provide as a permitted activity (within standards), upgrading of existing infrastructure in certain overlays when that infrastructure is located in formed legal road.

vii. On these points, in response to the recommendations in the Infrastructure S42A Report, I have recommendations amendments which would give effect to the relief sought through the submission.

## EVIDENCE IN CHIEF

**Professional Qualifications and Experience**

1. My name is Tom Anderson. I am a Principal Planner and a Director of Incite, a resource management consulting firm. I hold a Bachelor of Science and a Master of Planning (with Distinction), both from the University of Otago. I am a full member of the New Zealand Planning Institute and a member of the Resource Management Law Association. I am an Independent Commissioner, certified under the Ministry for the Environment's *Making Good Decisions* programme.

2. I have 19 years professional experience. Throughout my career I have provided advice to a number of telecommunication and radiocommunication companies, including submitters Chorus New Zealand Limited (Chorus), Connexa Limited (Connexa), FortySouth Group LP (FortySouth) and Spark New Zealand Trading Limited (Spark – formerly Telecom New Zealand Limited and Telecom Mobile Limited), as well as One New Zealand Group Limited (formerly Vodafone New Zealand Limited), Two Degrees Networks Limited, Tait Systems NZ Limited, Rural Connectivity Group and Vital (formerly TeamTalk). I have provided telecommunication companies with advice on district and unitary plan reviews and plan changes, site selection exercises, designation and outline plan of works processes, and consenting activities for network rollouts and exchange upgrades.

3. On this basis, I consider myself to have a comprehensive understanding of telecommunication and radiocommunication networks, and the practical implications of the Resource Management Act 1991 (RMA) framework, including the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 (NESTF), in relation to network installation, upgrade and operation.

4. I drafted and submitted the joint submissions of Chorus, Connexa, FortySouth and Spark (collectively referred to as 'the Telecommunication Companies') on the Proposed Waitaki District Plan (PDP).

5. I have read and am familiar with the Code of Conduct for Expert Witnesses (section 9 of the Environment Court Consolidated Practice Note 2023). My evidence has been prepared in compliance with that code. In particular, unless I state otherwise, this evidence is within my area of expertise, and I have not omitted to consider any material facts known to me that might alter or detract from the opinions I express.

**Scope and Purpose of Evidence**

6. This evidence has been prepared in review of the aforementioned telecommunications companies submissions on the PDP, as they relate to Hearing Stream 2 (HS2). In preparing this evidence I have read all other submissions and further submissions relevant to the companies submissions and the Infrastructure, Stormwater and Earthworks S42A reports for HS20F[1].

7. For the most part, the officers recommendations on these submissions are either accepted, accepted in part, or the alternate relief recommended in the S42A reports is acceptable. Therefore, changes to those provisions are no longer being pursued. For the record, attached in Appendix A to this evidence is a table of the submissions where I accept the officer's recommendation.

8. There are however a number of submission points for which I seek alternative relief to that recommended in the S42A Reports, being:

    - Submission Point 244.34 concerning the user notes in the introduction to the Infrastructure Chapter;
    - Submission Point 244.45 concerning amendments to INF-P11;
    - Submission Point 244.57 concerning amendments to INF-R10;
    - Submission Point 244.58 concerning amendments to INF-R13;
    - Submission Point 244.60 concerning amendments to INF-R15;
    - Submission Point 244.63 concerning amendments to INF-R21;
    - Submission Point 244.64 concerning amendments to INF-R23;
    - Submission Point 244.70 concerning amendments to INF-S2;
    - Submission Point 244.73 concerning amendments to INF-S5; and
    - Submission Point 244.75 concerning amendments to INF-S10.

[1] For completeness, the telecommunication companies do not have any submission points which are addressed in the S42A reports for Energy, Transport or Designations.

9. Through this evidence, I provide the justification as to why alternative relief to what is in the S42A Reports is sought on the above points.

10. As part of that reasoning, and what I consider to be important context for making decisions on some of the matters which remain in contention, is the very recent update to the NESTF (NESTF 2026).

11. On 10 September 2026, an updated NESTF was gazetted under Notice Number 2026-sl5200 (copy found here). The NESTF 2026 is beyond legal challenge and will come into force from 8 October 2026. A copy of the NESTF 2026 can be found here.

12. The NESTF 2026:

- Continues to permit cabinets in all zones, both within and outside of road reserve;
- Permits larger poles with larger antenna and ancillary equipment than what it currently does in road reserve;
- Permits poles with antenna and ancillary equipment outside of road reserve in the local centre, neighbourhood centre, mixed use, commercial large format retail, industrial and rural zones but relies on district plan provisions for residential, open space, town centre, city centre and special purpose zones;
- Increase size of permitted antenna, headframes and other ancillary measures; and
- Continues to permit upgrades (within standards) of existing facilities, regardless of location or zone.

13. In my opinion, the key difference from the NESTF 2016 is that the 2026 version increases the number of zones where it applies to telecommunication facilities on private sites. The NESTF 2016 primarily applies to new poles in road reserve and in rural zone. The NESTF 2026 increases the number of zones regulated for facilities outside of road reserve, as well as permitting larger equipment on regulated sites.

14. Essentially, the zones where new poles with antenna and ancillary equipment will continue to be regulated by the PDP are:

- General Residential Zone;
- Medium Density Residential Zone;

- Settlement Zone;
- Town Centre Zone;
- Open Space Zone;
- Sport and Active Recreation Zone; and
- Special Purpose Zone – Macraes Mining.

15. The PDP will continue to set the activity status for NESTF 2026 regulated activities which cannot meet the permitted standards of the NESTF 2026.

16. Given the advent of NESTF 2026, where I consider there to be scope within my submissions, I have sought to provide alignment between what is regulated under NESTF 2026 with the PDP. The provisions within the PDP which I consider need to be amended are INF-R13 (Submission Point 244.58), INF-R15 (Submission Point 244.60), INF-R21 (Submission Point 244.63), INF-S2 (Submission Point 244.70), INF-S5 (Submission Point 244.73) and INF-S10 (Submission Point 244.75). I comment on these collectively in this evidence under the heading 'NESTF 2026 alignment amendments'.

17. However, before I provide those comments, I address the remaining matters which are in contention as listed in Paragraph 8 above.

**Introduction to the Infrastructure Chapter – User Notes**

18. Submission 244.34 sought that the user notes included at the end of the introduction section to the Infrastructure chapter either be deleted or be more precise, so it is clear what chapters and rules apply in addition to the Infrastructure chapter.

19. The reporting officer recommends that the submission be rejected, on the basis that they consider the user notes *"provide useful guidance on the relationship between the INF Chapter and other relevant PDP provisions. I do not consider it appropriate to delete the notes or attempt to comprehensively identify every other provision that may apply, as this could create uncertainty where relevant provisions are inadvertently omitted and would require unnecessary duplication. Plan users remain responsible for considering the PDP as a whole and determining which provisions apply to a particular activity."*[2].

[2] Paragraph 218 of the Infrastructure s42A Report

20. I agree that it is the plan users responsibility for determining which provisions apply to a particular activity, but that does not mean that the plan itself cannot be helpful in this regard.

21. By including user notes in the Infrastructure chapter which is specific in terms of other rules in the PDP which may also apply to infrastructure activities and therefore should be considered provides certainty applicants, council planners and any interested parties as to must be taken into account for any given infrastructure activity. I am aware that this approach is included in the appeals version of the Proposed Napier District Plan, and find it a very useful tool when using that plan. The following is a screenshot of that section:

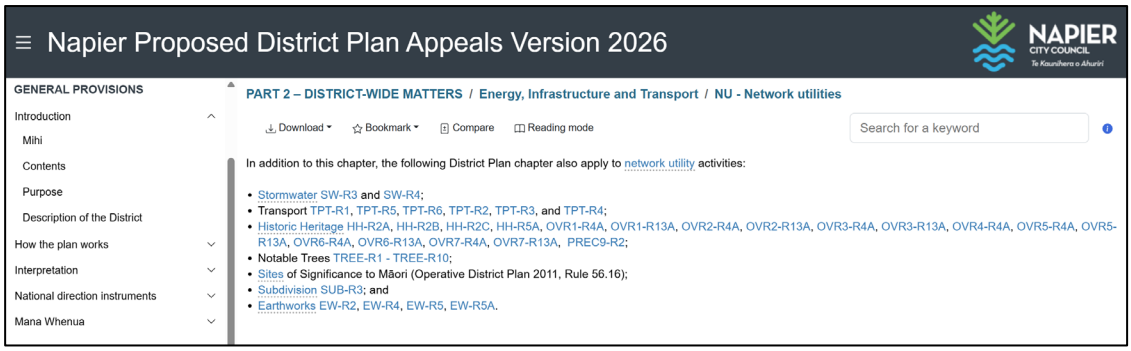



**Figure 1: Screenshot of cross references to other applicable provisions in the Napier Proposed District Plan**

22. Given the certainty that such an approach provides to all plan users, I seek that the user notes in the introduction section of the PDP are amended to be specific as to which other provisions in the PDP may also apply to infrastructure activities in the Waitaki District.

23. It should be noted that for all relief sought in my evidence, recommended amendments as per the S42A Report are shown in red, with my recommended amendments shown in blue (and in both instances, underline is used for additional text and strikethrough for ~~deleted~~ text):

Amend the user notes in the introduction to the Infrastructure Chapter as follows:

*It is important to note that in addition to the provisions in this chapter, ~~a number of other Part 2: District Wide Matters chapters also contain~~ the following provisions ~~that~~ may also be relevant for infrastructure activities~~, including~~:*

- *Transport – ~~the Transport chapter sets out the requirements for development of new transport infrastructure~~ TRAN-R1, TRAN-R2, TRAN-R3, TRAN-R6, TRAN-R7.*

- *Hazardous Substances – HAZS-R1, HAZS-R2.*
- *Natural Hazards – NH-R1, NH-R2, NH-R3, NH-R4.*
- *Historic Heritage – HH-R3, HH-R4, HH-R5, HH-R8, HH-R9, HH-R10, HH-R11, HH-R12, HH-R13, HH-R14, HH(ŌHA)-R3, HH(ŌHA)-R5, HH(ŌHA)-R6, HH(ŌHA)-R7, HH(ŌHA)-R9, HH(ŌHA)-R10.*
- *Notable Trees – TREE-R1, TREE-R2, TREE-R3, TREE-R4.*
- *Sites and Areas of Significance to Māori – SASM-R2, SASM-R4.*
- *Ecosystems and Indigenous Biodiversity – ECO-R1, ECO-R2, ECO-R3, ECO-R6, ECO-R7.*
- *Natural Character – NATC-R1, NATC-R2.*
- *Natural Features and Landscapes – NFL-R1, NFL-R2, NFL-R3, NFL-R4.*
- *Subdivision – ~~the Subdivision chapter sets out the requirements for the development of new infrastructure connections as part of the subdivision activities~~ SUB-R1, SUB-R2, SUB-R3, SUB-R5.*
- *Coastal Environment – CE-R4, CE-R5.*
- *Earthworks – EW-R1, EW-R2, EW-R5, EW-R6, EW-R7.*
- *Light – LIGHT-R1.*
- *Noise – NOISE-R1.*
- *Signs – ~~the Signs chapter sets out the requirements for new signs, including signs associated with the construction, operation, maintenance and repair or upgrading of infrastructure~~ SIGN-R1.*

*There are no applicable provisions in Part 3 – Area Specific Matters*

24. Please note, should the panel agree wish to explore my approach further, I am happy to discuss and confirm with the reporting officer if there are any other provisions that they consider should be added to or deleted from the relief sought in the previous paragraph.

**INF-P11**

25. Submission Point 244.45 sought an amendment to the wording of clause 2 to policy INF-P11. The policy concerns upgrades to existing and new infrastructure on heritage items or sites of significance to Māori. Clause 2 of the policy as notified seeks that *the upgrade to existing infrastructure or new infrastructure will protect and maintain the heritage and/or cultural values of any building, Item, site, place or Historic Area*.

26. The reasoning stated in the submission supports INF-P11, but states that it is unclear how an infrastructure upgrade or new infrastructure can *protect and maintain* a heritage or cultural value. It sought that these words in clause 2 be replaced by *"not detract from"*.

27. The reporting officer recommends that the submission point be rejected, noting that heritage is recognised as a section 6 matter of national importance under the RMA, that the policy recognises that infrastructure may need to locate within these areas where there is an operational or functional need, and that therefore it is appropriate that infrastructure proposed in these locations protect and maintain the identified heritage and cultural values.

28. I acknowledge that protection is a term used in regard to historic heritage in section 6 of the RMA, however it is used in the context of protecting historic heritage from *inappropriate* use and development. Infrastructure assists with the ongoing use of heritage buildings and areas by ensuring that they are up to modern standards. As such I would consider infrastructure to generally be an appropriate use and development.

29. However, I also do not think that infrastructure should detract from the values as to why items or areas have been listed in the PDP. As such, I continue to support the wording that infrastructure was sought in Submission Point 244.45.

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| Amend Clause 2 of INF-P11 as follows:<br><br>2. *the upgrade to existing infrastructure or new infrastructure will not detract from ~~protect and maintain~~ the heritage and/or cultural values of any building, Item, site, place or Historic Area.* |

**INF-R10**

30. Submission 244.57 supported INF-R10 and sought that it be retained as notified, as it ensured that new underground infrastructure was permitted, regardless of whether it was in an overlay or not.

31. On the basis of other submissions, the reporting officer has recommended amendments to the rule, so that it now reads *New underground infrastructure located outside of any overlay*.

32. This recommended wording alters the reason why INF-R10 was supported.

33. The reporting officer considers that the recommended amendment *recognises that the associated excavation and ground disturbance may adversely affect the values and characteristic of overlays*[3].

34. In my view, placing infrastructure underground is a method to uphold the values and characteristics of overlays. I consider the only overlay where the excavation and ground disturbance may affect values is Site and Areas of Significance to Māori, although I note that in that overlay the provisions of the Heritage New Zealand Pouhere Taonga Act will likely apply. In all other overlays, the undergrounding of infrastructure is very much 'out of sight, out of mind'. I also note that in the ecosystems and indigenous biodiversity overlays, area limits on vegetation disturbance apply, which limits the amount of excavation which can be done.

35. On this basis, I consider that the following amendment be made to INF-R10 as per the Infrastructure s42A Report:

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| Amend INF-R10 as follows:<br><br>*New underground infrastructure located outside of any ~~overlay~~ Site and Areas of Significance to Māori.* |

**INF-R23**

36. INF-R23 as notified provides, as a starting point, restricted discretionary activity status for the upgrading of infrastructure (including ancillary vehicle access tracks) in specified overlays

[3] Paragraph 612 of the Infrastructure s42A Report.

(being, as recommended in the Infrastructure s42A Report, being any area identified in SCHED2 - Historic Heritage Items or the Ōamaru Historic Area or more than 900m above sea level).

37. Submission Point 244.64 supported the provision in part, but sought an amendment to exclude any infrastructure in the overlays within formed legal road.

38. The point was recommended to be rejected by the reporting officer on the basis that *"infrastructure located within legal roads may still adversely affect the identified values of natural, cultural and heritage overlays. A blanket exclusion could remove an appropriate level of assessment where major upgrading has the potential to adversely affect those values"*[4].

39. *Upgrading* as defined in the PDP *means in relation to infrastructure, the improvement or increase in carrying capacity, operational efficiency, security or safety of existing infrastructure, but excludes maintenance and repair*. This was supported in the telecommunication companies submissions (Submission Point 244.23).

40. At paragraph 160 of the Infrastructure s42A Report that definition is recommended to be amended to *means ~~in relation to infrastructure, the improvement or~~ increas<u>ing</u> ~~e in carrying~~ the capacity, <u>level of service,</u> ~~operational~~ efficiency, ~~safety~~, security, <u>resilience, effectiveness or longevity</u> ~~or safety~~ of existing infrastructur~~e, but excludes maintenance and repair.~~ <u>and includes replacement, renewal, addition, expansion and intensification of existing infrastructure</u>*. I have no issue with this amended definition.

41. Both definitions make it clear that *upgrading* can only occur on infrastructure which exists. It does not introduce a new element into an environment.

42. The extent of what can be upgraded is provided for in INF-S1. Again, this was supported in the telecommunications submissions (Submission Point 244.69). The reporting officer recommends no changes to the standard as notified[5].

43. INF-S1 provides appropriate limits in terms of extent of upgrades. When considering these limits alongside the existing environment of legal road in an overlay in which other infrastructure exists in that legal road, the limits of what applies under INF-S1 in my view does not allow for *major upgrading* that the reporting officer has identified as their reasons for recommending rejection of the point. Rather, INF-S1 ensures any upgrades will be within a reasonable scope of the existing infrastructure that is being upgraded, and will ensure that

[4] Paragraph 720 of the Infrastructure s42A Report
[5] Paragraph 805 of the Infrastructure s42A Report

infrastructure will be modern and appropriate within the legal road in the areas that INF-R23 applies.

44. As such, I continue to seek relief as sought in the submission.

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| Amend the title to INF-R23 as follows:<br><br>*INF-R23 Upgrading of infrastructure including any ancillary vehicle access tracks, but excluding road (and any infrastructure located within formed legal road), walkways, cycleways and shared paths located in an area identified in, SCHED2 - Historic Heritage Items or the Ōamaru Historic Area or more than 900m above sea level* |

**NESTF 2026 alignment amendments**

INF-R13

45. INF-R13 provides for telecommunication poles with or without antenna, and antenna attached to poles (not regulated by the NESTF) outside of any overlay.

46. Submission Point 244.58 supported the intent of this rule, but sought an amendment in that clause PER-2 be removed, on the basis that telecommunication poles are needed in all zones, and the permitted size for all zones is set by the standards.

47. The reporting officer recommends that the amendment be rejected on the basis that they consider INF-R13 *"distinguishes between those zones where telecommunication poles are generally anticipated and more sensitive zones where additional consideration of potential effects on character and amenity is warranted. In my opinion, the Restricted Discretionary activity status continues to provide an enabling consenting pathway for telecommunication infrastructure while allowing assessment of localised adverse effects in those more sensitive environments"*[6].

48. Firstly, noting the reason for rejection, I note INF-S2 sets permitted height standards in all zones, and as such in my view provides for an appropriate level of infrastructure in what the reporting officer considers to be more sensitive zones. I also note that the revised NESTF sets a permitted height in legal road in all zones, regardless of any perceived sensitivity.

[6] Paragraph 634 of the Infrastructure s42A Report

49. With subclause PER-2 included, INF-R13 permits new poles in the Commercial and Mixed Use Zones (Local Centre, Mixed Use, Town Centre and Large Format Retail Zone), Industrial Zones (Light Industrial, General Industrial and Heavy Industrial Zones), General Rural Zone and Sport and Recreation Zone.

50. The introduction of NESTF 2026 provides for permitted poles outside of legal road in the Local Centre, Mixed Use, Large Format Retail, all industrial and all rural zones.

51. My preference is that PER-2 continues to be removed. This would make alignment with the NESTF 2026 simpler. The heights provided in INF-S2 would then be applied as a permitted activity for any poles outside of road reserve that the NESTF 2026 does not cover, noting that as the NESTF has higher heights in those zones for legal road than what the INF-S2 of the PDP provides, legal road would likely be the preferred option for a telecommunication company to establish their infrastructure in the area in any instance.

52. As such, I continue to seek that INF-R13 be amended as follows:

Amend INF-R13 as follows:

*INF-R13 Telecommunication poles, with or without associated antenna, and antenna attached to poles (not regulated by the NESTF) outside of any overlay.*

*Activity status: Permitted*

*Where:*

*PER-1 - All of the following standards are complied with where relevant:*

1. *INF-S2 Height - masts, antennas, lines and single pole support structures, including anemometers, extreme weather and tsunami warning devices, air and marine navigational aids (not regulated by the NESTF);*
2. *INF-S3 Size – ground mounted poles (not regulated by the NESTF);*
3. *INF-S5 Size and diameter – antenna attached to a telecommunication pole (not regulated by the NESTF);*
4. *INF-S9 Setbacks – all new Infrastructure not located in the road reserve or rail corridor, excluding infrastructure that crosses a river along a bridge or structure;*
5. *INF-S10 Setbacks –antenna not located in the road reserve or rail corridor;*
6. *EW-S5 Infrastructure earthworks – slope, height, depth;*

7. *EW-S6 Infrastructure earthworks – area in a 12 month period per site, excluding the road reserve and rail corridor; and*

*~~PER-2 - The activity is located in any of the Commercial and Mixed Use Zones, Industrial Zones, General Rural Zone or Sport and Recreation Zone; and~~*

*PER-3 - The standard INF-S12 Radiofrequency fields and electric and magnetic fields is complied with.*

INF-R15

53. INF-R15 provides for customer connection lines outside of any overlay. Submission Point 244.60 sought that this rule be amended to remove the words 'outside of any overlay'. This was not supported by the reporting officer.

54. The point is now largely moot. The genesis of the submission point was to ensure that heritage buildings are appropriately provided with modern services so that their use can be sustained.

55. Regulation 40 of the NESTF 2026 now permits customer connections to heritage buildings, subject to specifications.

56. As such, there is no requirement to pursue the relief sought. However, the panel may wish to include a similar approach for consistency with INF-R13, recognising that INF-R15 also applies to activities not regulated by the NESTF.

Amend the title of INF-R15 as follows:

*Customer connection lines outside of any overlay (and not regulated by the NESTF)*

INF-R21

57. Submission Point 244.63 supported in part INF-R21, but sought controlled activity status for poles which exceeded the permitted height limit in the NESTF but met the zone height standard in the PDP. This is largely a moot point with the new permitted heights provided in the NESTF 2026.

58. INF-R21 does however reference particular regulations of the NESTF, which are now out of date with NESTF 2026. There is no requirement under NESTF 2026 for a district plan rule to specify which regulations in the NESTF that it applies to. Rather, Regulations 12-18 of the NESTF set out that if the permitted standards of a regulated activity under the NESTF are not met, the activity

status is set by what the district plan would otherwise provide. As such, rather than specifying which regulations of the NESTF a rule applies to, the word 'relevant' would be sufficient.

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| Amend the title of INF-R21 as follows:<br><br>*Telecommunication poles, antennas and cabinets regulated by the NESTF that do not meet the relevant permitted activity standards ~~in Regulations 20, 21, 22, 27, 29, 31, 33, 35 or 37~~ of the NESTF* |

INF-S2

59. INF-S2 provides the permitted height standards in all zones. Submission Point 244.70 sought amendments to INF-S2 to provide alternative heights. The heights sought were:

- All Residential Zones, Settlement Zone and Local Centre Zone have a permitted height of 20m;
- All Rural Zones (including Rural Lifestyle) have a permitted height of 35m;
- Any Overlay area has a permitted height of 25m when located in road and 15m outside of legal road;
- Any other zone has a permitted height of 25m;
- An additional 5m of height is afforded where two or more facility operators are co-located on the same pole, regardless of zoning or overlay.

60. The reporting officer did not support the relief sought on the basis that *"the NESTF does not support all of the amendments sought by the submitter"*[7] and recommends that the submission point be rejected.

61. NESTF 2026 provides a new set of permitted heights, which are more broadly in alignment with what was sough in the submission point. The following table provides a comparison of the heights permitted under INF-S2, the heights permitted in the NESTF 2026, and, for reasons discussed below, the permitted building height for that zone.

[7] Paragraph 810 of the Infrastructure s42A Report

| Zone | Maximum Permitted Building Height | INF-S2 Permitted Height | NESTF 2026 Permitted Height inside road (single operator) | NESTF 2026 Permitted Height inside road (two or more operators) | NESTF 2026 Permitted Height outside road (single operator) | NESTF 2026 Permitted Height outside road (two or more operators) |
|---|---|---|---|---|---|---|
| General Residential | 8m | 15m | 20m | Not regulated | Not regulated | Not regulated |
| Medium Density Residential | 10m | 15m | 20m | Not regulated | Not regulated | Not regulated |
| Settlement | 8m | 15m | 20m | Not regulated | Not regulated | Not regulated |
| Rural Lifestyle | 10m | 15m | 35m | 40m | 35m | 40m |
| Town Centre | 12m | 15m | 25m | 30m | Not regulated | Not regulated |
| Light Industry | 10m | 15m | 25m | 30m | 25m | 30m |
| Large Format Retail Zon | 12m | 15m | 25m | 30m | 25m | 30m |
| General Rural | 10m | 30m | 35m | 40m | 35m | 40m |
| Local Centre | 12m | 30m | 20m | 25m | 20m | 25m |
| Mixed Use | 12m | 30m | 25m | 25m | 25m | 30m |
| General Industrial | 12m | 30m | 25m | 30m | 25m | 30m |
| Heavy Industrial | 20m | 30m | 25m | 30m | 25m | 30m |
| Open Space | 5m | 30m | 25m | 30m | Not regulated | Not regulated |
| Sport and Active Recreation | 10m | 30m | 25m | 30m | Not regulated | Not regulated |
| Special Purpose – Macraes Mining | 10m | 30m | 25m | 30m | Not regulated | Not regulated |

62. The primary reason why height is important for telecommunication companies is two-fold. Height improves the efficacy of an antenna. Height also provides for health and safety matters.

63. I note Mr McCarrison comments on this in his evidence. However, if it is helpful, I have provided my understanding of it based on my experience as follows.

64. Turning to height first, the height of antenna, and in particular, clearance from buildings, is critical for mobile telecommunication facilities. Such facilities rely on line of sight to be able to perform their function. The following diagrams, provided by a Spark radiofrequency engineer, shows how a higher antenna height provides better outdoor and indoor coverage for end users, as the higher antenna height extends above local 'clutter' to provide line of sight:

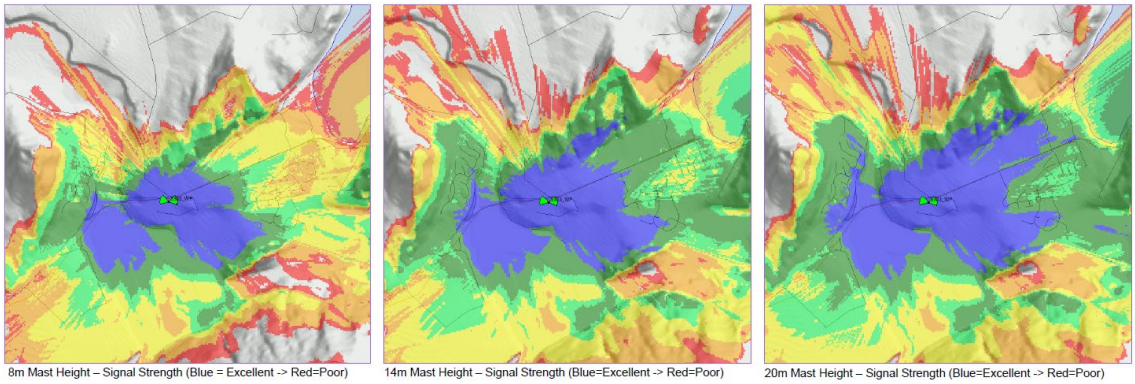



**Figure 2: Outdoor Coverage from different mast (and therefore antenna) heights**

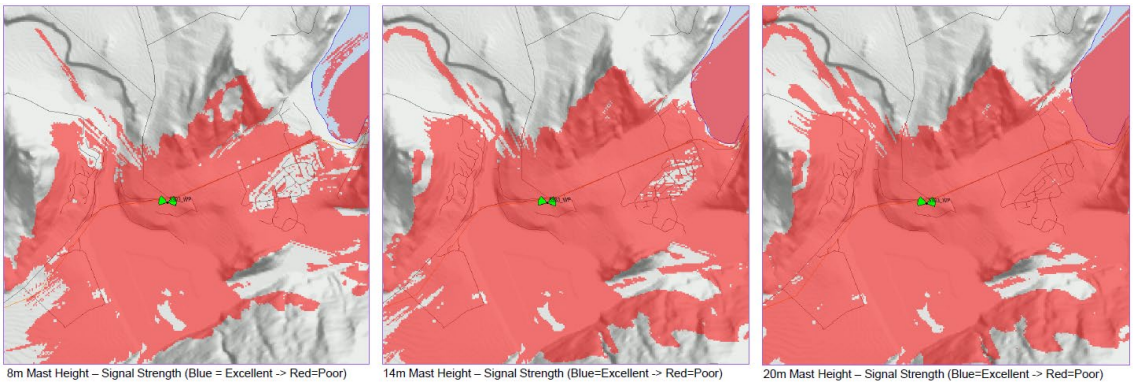



**Figure 3: Indoor Coverage from different mast (and therefore antenna) heights**

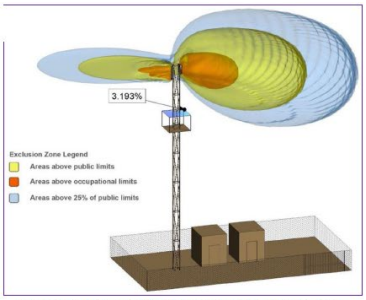
65. Clutter is commonly created by buildings and trees. Essentially, as identified by the reporting officer, some of the as notified pole height provisions in the PDP allow for buildings to be constructed that 'block' existing and any future permitted mobile telecommunication facilities. As well as these provisions affecting potential future sites, they also create a potential reverse sensitivity effect on existing sites.

66. Turning to health and safety, under the NESTF, all antennas must be assessed against, and comply with, New Zealand Standard 2772.1:1999 Radiofrequency fields - Maximum exposure levels (NZS2772). This document sets out limits for exposure to the radiofrequency radiation produced by all types of radio transmitters, for people exposed at work and for the general public.

67. To assess and achieve compliance with NZS2772, radiofrequency engineers use a compliance software to establish and maintain safety compliance. Essentially, the software requires inputs including pole height, antenna model, transmit powers, nearby building heights and areas accessible to the public. The output graphically displays distances, both horizontally and vertically, that meet compliance including areas between 25% and 100% of the public limit and areas above occupational limits. An example is as follows:

68. Under the NESTF, all antennas must be assessed against, and comply with, New Zealand Standard 2772.1:1999 Radiofrequency fields - Maximum exposure levels (NZS2772). This document sets out limits for exposure to the radiofrequency radiation produced by all types of radio transmitters, for people exposed at work and for the general public.

69. To assess and achieve compliance with NZS2772, radiofrequency engineers use a compliance software to establish and maintain safety compliance. Essentially, the software requires inputs including pole height, antenna model, transmit powers, nearby building heights and areas accessible to the public. The output graphically displays distances, both horizontally and vertically, that meet compliance including areas between 25% and 100% of the public limit and areas above occupational limits. An example is as follows:



An example of calculated exposure at a given location


An example of RF Lobes – Plan view

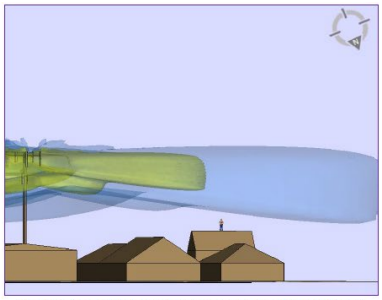

An example of RF lobe clearance from an elevation view

**Figure 4: Output from radiofrequency compliance software**

70. Through enabling increased permitted building heights without enabling a corresponding increase in mobile telecommunication facility height in the identified zones potentially allows people to be exposed to greater levels of radiofrequency.

71. In my experience, typically a permitted pole height of 5m above the building height in any given zone is sufficient to address both clutter and radiofrequency matters.

72. The only zone in the PDP where 5m is not achieved between the maximum permitted building height and the maximum permitted pole height (under either the NESTF or PDP) is where a pole

is located on a private site in the Town Centre Zone. Buildings in this zone can be 12m and poles 15m.

73. As such, the only amendment sought to the heights provided in INF-S2 is to the Town Centre Zone height, seeking 17m so that necessary clearances are achieved above buildings when a pole is located outside of legal road.

Amend INF-S2 as follows:

| ***INF-S2*** | ***Height - masts, antennas, lines and single pole support structures, including anemometers, extreme weather and tsunami warning devices, air and marine navigational aids (not regulated by the NESTF)*** | |
|---|---|---|
| ***All Residential Zones***<br>***Settlement Zone***<br>***Rural Lifestyle Zone***<br>***~~Town Centre Zone~~***<br>***Light Industry Zone***<br>***Large Format Retail Zone*** | *1. the infrastructure must not exceed a maximum height above ground level of 15m.* | *Matters of discretion are restricted to:*<br>*1. local, regional and national benefits; and*<br>*2. the effect on the streetscape and amenity values of the area; and*<br>*3. the extent to which co-location of the infrastructure is technically or practicably possible to minimise their visual impact; and*<br>*4. design and siting of the mast, pole or support structure; and*<br>*5. any mitigation, offset or compensation measures offered; and*<br>*6. any operational needs or functional needs of the infrastructure; and*<br>*7. whether topographical and other site constraints make compliance with the permitted standard impractical.* |
| ***Town Centre Zone*** | *2. the infrastructure must not exceed a maximum height above ground level of 17m.* | |
| ***All other zones*** | *~~2~~3. the infrastructure must not exceed a maximum height above ground level of 30m.* | |

INF-S5

74. Submission Point 244.73 sought amendments to INF-S5. The NESTF 2026 provides for a greater range of antenna and headframe. I note this was accepted in part by the reporting officer, who provided alignment with NESTF 2016.

75. The NESTF 2026 now allows for the following pole and headframe widths in the PDP zones:

| **NESTF 2026 Permitted pole width inside road** | **NESTF 2026 Permitted pole width inside road** | **NESTF 2026 Permitted pole width outside road** | **NESTF 2026 Permitted headframe width inside road** | **NESTF 2026 Permitted headframe width outside road** |
|---|---|---|---|---|
| General Residential | 0.9m | Not regulated | 1.6m | Not regulated |
| Medium Density Residential | 0.9m | Not regulated | 1.6m | Not regulated |
| Settlement | 0.9m | Not regulated | 1.6m | Not regulated |
| Rural Lifestyle | 1.7m | 6m | 4.5m | 6m |
| Town Centre | 1.5m | Not regulated | 2.5m | Not regulated |
| Light Industry | 1.5m | 1.5m | 4.5m | 4.5m |
| Large Format Retail Zon | 1.5m | 1.5m | 4.5m | 4.5m |
| General Rural | 1.7m | 6m | 4.5m | 6m |
| Local Centre | 1.5m | 1.5m | 2.5m | 2.5m |
| Mixed Use | 1.5m | 1.5m | 2.5m | 2.5m |
| General Industrial | 1.5m | 1.5m | 4.5m | 4.5m |
| Heavy Industrial | 1.5m | 1.5m | 4.5m | 4.5m |
| Open Space | 1.5m | Not regulated | 1.6m | Not regulated |
| Sport and Active Recreation | 1.5m | Not regulated | 1.6m | Not regulated |
| Special Purpose – Macraes Mining | 1.5m | Not regulated | 2.5m | Not regulated |

76. As such, similar to height, INF-S5 is only regulating new poles and headframes where the pole is located outside of legal road in the residential, town centre, open space and special purpose zones.

77. I consider that INF-S5 should be aligned with the NESTF 2026, as opposed to NESTF 2016. This can be achieved as follows:

Amend INF-S5 as follows:

| ***INF-S5*** | ***Height - masts, antennas, lines and single pole support structures, including anemometers, extreme weather and tsunami warning devices, air and marine navigational aids (not regulated by the NESTF)*** | |
|---|---|---|
| ~~***General Rural Zone***~~<br>~~***Industrial zone***~~ | ~~*1. An antenna attached to a pole must be contained within a horizontal circle with a maximum diameter of 6.5m.*~~ | *Matters of discretion are restricted to:*<br>*1. local, regional and national benefits; and*<br>*2. the effect on the streetscape and amenity values of the area; and*<br>*3. design and siting of the mast and/or antennae; and*<br>*4. any mitigation, offset or compensation measures offered; and*<br>*5. any operational needs or functional needs of the infrastructure; and*<br>*6. whether topographical and other site constraints make compliance with the standard impractical.; and*<br>*7. whether the additional diameter will facilitate the co-location of more than one telecommunications operator on the pole, thereby reducing the need for additional telecommunication structures.* |
| ~~***All other zones***~~ | ~~*2. An antenna attached to a pole must be contained within a horizontal circle with a maximum diameter of 750mm.*~~ | |
| ***Town Centre Zone***<br>***Special Purpose Zone = Macraes mine*** | *1. A pole must be no wider than 1.5m and a headframe have a diameter no greater than 2.5m* | |
| ***Residential Zones***<br>***Open Space Zones*** | *2. A pole must be no wider than 0.9m and a headframe have a diameter no greater than 1.6m* | |

INF-S10

78. INF-S10 concerns setbacks for antenna not located in the road reserve or rail corridor, Submission Point 244.75 sought amendments to INF-S10, in particular subclause 1.b. as it was

not clear. The reporting officer has sought to provide clarity through their recommended amendments[8].

79. The standard sets a setback from an intersection in the General Rural Zone, Special Purpose Zone – Macraes Mining or Rural Lifestyle Zone. Given the NESTF 2026, the standard can only be applied to antenna in the Special Purpose Zone – Macraes Mining. Should the standard be retained, it should be amended to reflect this.

80. However, I remain unclear as to what the standard is setting out to achieve. I am also unclear from the standard as to what the *point of an intersection of the legal road boundaries* exactly is, and why, only in the Special Purpose Zone – Macraes Mining, such a setback is needed when it is not applied in any other zone.

81. As such I continue to seek that clause subclause 1.b of INF-S10 be deleted as follows:

Amend INF-S10 as follows:

| ***INF-S10*** | ***Height - masts, antennas, lines and single pole support structures, including anemometers, extreme weather and tsunami warning devices, air and marine navigational aids (not regulated by the NESTF)*** | |
|---|---|---|
| ***All Zones*** | *1. No antenna must be located within:*<br>*a. a 10m setback from a site boundary that adjoins a Residential Zone;*<br>*~~b. a setback from of the point of any intersection of the legal road boundaries in the General Rural Zone, Special Purpose Zone – Macraes Mining or Rural Lifestyle Zone~~*<br>*2. Clause 1 (a) does not apply to the boundary of the road reserve.* | *Matters of discretion are restricted to:*<br>*1. local, regional and national benefits; and*<br>*2. the effect on the streetscape and amenity values of the area; and*<br>*3. design and siting of the mast and/or antennae; and*<br>*4. any mitigation, offset or compensation measures offered; and*<br>*5. any operational needs or functional needs of the infrastructure; and*<br>*6. whether topographical and other site constraints* |

[8] Paragraphs 859 to 861 of the Infrastructure s42A Report

| | | |
|---|---|---|
| | | *make compliance with the standard impractical.* |

**Concluding Comments**

82. There are no further matters which I consider require consideration for this hearing.



Tom Anderson

14 September 2026

**Appendix A: Submissions addressed in the s42A Reports where Officer's recommended relief is accepted**

| Submission | Provision | S42A Recommendation |
|---|---|---|
| 244.1 | Definition of *antenna* | Accept |
| 244.3 | Definition of *cabinet* | Accept |
| 244.5 | Definition of *customer connection line* | Accept |
| 244.7 | Definition of *infrastructure* | Accept |
| 244.9 | Definition of *maintenance and repair* | Accept in part |
| 244.10 | Definition of *network utility* | Accept |
| 244.11 | Definition of *network utility operator* | Accept |
| 244.13 | Definition of *pole* | Accept |
| 244.14 | Definition of *regionally significant infrastructure* | Accept |
| 244.16 | Definition of *road reserve* | Accept |
| 244.17 | Definition of *small cell unit* | Accept |
| 244.19 | Definition of *telecommunication* | Accept |
| 244.20 | Definition of *telecommunication kiosk* | Accept |
| 244.21 | Definition of *tower* | Accept |
| 244.22 | Definition of *transport network ancillary infrastructure* | Accept in part |
| 244.23 | Definition of *upgrading* | Reject |
| 244.24 | New definition of *line* | Accept |
| 244.25 | NESTF | Accept |
| 244.28 | SD-IEE-O1 | Reject |
| 244.33 | Introduction to Infrastructure | Accept |
| 244.35 | INF-O1 | Reject |
| 244.36 | INF-O2 | Reject |
| 244.37 | INF-O3 | Reject |
| 244.38 | INF-O4 | Reject |
| 244.39 | INF-P1 | Reject |
| 244.40 | INF-P2 | Reject |
| 244.41 | INF-P3 | Accept in part |
| 244.42 | INF-P4 | Reject in part |
| 244.43 | INF-P9 | Reject |
| 244.44 | INF-P10 | Accept |
| 244.48 | INF-R1 | Accept |
| 244.49 | INF-R2 | Accept in part |
| 244.50 | INF-R3 | Accept in part |
| 244.51 | INF-R4 | Accept |
| 244.52 | INF-R5 | Accept |
| 244.53 | INF-R6 | Accept |
| 244.54 | INF-R7 | Accept |
| 244.55 | INF-R8 | Accept |
| 244.56 | INF-R9 | Accept |
| 244.59 | INF-R14 | Accept |
| 244.61 | INF-R16 | Accept |
| 244.62 | INF-R18 | Accept |
| 244.67 | INF-R28 | Reject |
| 244.68 | INF-R32 | Reject |

| | | |
|---|---|---|
| 244.69 | INF-S1 | Accept |
| 244.71 | INF-S3 | Accept |
| 244.72 | INF-S4 | Accept |
| 244.74 | INF-S6 | Accept |
| 244.76 | INF-S11 | Accept |
| 244.77 | INF-S13 | Accept |
| 244.80 | STORM-R1 | Reject |
| 244.81 | TRAN-P9 | Accept |
| 244.96 | EW-S5 | Reject |
| 244.97 | EW-S6 | Accept |
| 244.98 | EW-S7 | Accept |
| 244.99 | EW-S8 | Accept |
| 244.100 | EW-S9 | Accept |