

BEFORE GORE DISTRICT COUNCIL

IN THE MATTER OF

the Resource Management Act 1991

AND

IN THE MATTER OF

Gore District Council's Proposed District
Plan: Hearing Stream 7 – Activities on the
Surface of Water, Earthworks,
Infrastructure, and Energy

STATEMENT OF EVIDENCE TOM ANDERSON

ON BEHALF OF

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

18 October 2024

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. 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.
- iii. As provided for in Paragraph 5.21 of Minute 5 of the Hearing Panel (titled *Hearing Procedures*), this summary statement provides a summary of the evidence in chief.
- iv. Chorus, Connexa, FortySouth, One NZ and Spark (the telecommunication companies) lodged submissions on the Proposed Gore District Plan (PDP).
- v. 41 of the submission points are addressed in Hearing Stream 7, 36 assessed under the Energy and Infrastructure Section 42A Report and 5 under the Earthworks Section 42A Report. I agree with the Council officer recommendations in the Section 42A (S42A) Reports on 32 of these submission points.
- vi. The matters which remain in contention for the hearing are:
 - The standalone nature of the Network Utilities Chapter;
 - INFR-O4, regarding recognition of functional and operational need at objective level;
 - INFR-R4 regarding to breadth of activities that are permitted with regard to above ground infrastructure;
 - INFR-R8 concerning Controlled Activity status for antennas up to a certain size;
 - INFR-R9 concerning activity status of infrastructure in specified areas;
 - INFR-S1 concerning what a navigable waterbody is;
 - INFR-S3 regarding permitted pole heights in all zones; and

- Relocation of, and amendments to, TEMP-R10 from the Temporary Activities Chapter to the Network Utilities Chapter.
- vii. For each of the above the same or similar relief is sought as per the submissions of the telecommunication companies.

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 17 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), One New Zealand Group Limited (One NZ – formerly Vodafone New Zealand Limited) and Spark New Zealand Trading Limited (Spark – formerly Telecom New Zealand Limited and Telecom Mobile Limited), as well as Two Degrees Networks Limited, Rural Connectivity Group and Vital (formerly TeamTalk). I have provided the 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 in relation to network installation, upgrade and operation.
4. I drafted and submitted the submissions of Chorus, Connexa, FortySouth, One NZ and Spark on the Proposed Gore District Plan (PDP). The submissions of the aforementioned telecommunications companies are exactly the same and have been addressed as a group in the s42A reports.
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 7 (HS7). In preparing this evidence I have read all other submissions and further submissions relevant to the companies submissions and the S42A reports for HS7.
7. For the most part, the submissions were either accepted, or the alternate relief recommended in the S42A reports is acceptable, and therefore changes to those provisions are no longer being pursued. For completeness, those provisions and submissions are:

Energy and Infrastructure S42A Report

- Amendments to the definition of Critical Infrastructure (Submission Points, s32.001 (One), s33.001 (FortySouth), s35.001 (Chorus) s37.001 (Connexa) and s154.001 (Spark));
- Retention of the definition of Functional Need (s32.002, s33.002, s35.002, s37.002 and s154.002);
- Retention of the definition of Infrastructure (s32.003, s33.003, s35.003, s37.003 and s154.003);
- The alternate relief recommended in the s42A report regarding the definition of Network Utilities (s32.004, s33.004, s35.004, s37.004 and s154.004);
- Retention of the definition of Network Utility Operator (s32.005, s33.005, s35.005, s37.005 and s154.005);
- Retention of the definition of Operational Need (s32.006, s33.006, s35.006, s37.006 and s154.006);
- The reasoning provided in the s42A report regarding not providing a definition for Mast (s32.008, s33.008, s35.008, s37.008 and s154.008).
- The alternate relief recommended in the s42A report regarding the definition of Support Poles and Support Structures (s32.009, s33.009, s35.009, s37.009 and s154.009);
- The alternate relief recommended in the s42A report regarding the definitions of Ancillary Equipment, Antenna, Cabinet, Pole and Small Cell Unit (s32.010, s33.010, s35.010, s37.010 and s154.010);

- The amendments to the Infrastructure Overview (s32.011, s33.011, s35.011, s37.011 and s154.011);
- The alternate relief recommended in the s42A report regarding INFR-O1 (s32.013, s33.013, s35.013, s37.013 and s154.013);
- The recommended deletion of INFR-O2 (s32.014, s33.014, s35.014, s37.014 and s154.014);
- The recommended amendments to INFR-O3 (s32.015, s33.015, s35.015, s37.015 and s154.015), noting that the amendments are only shown at Paragraph 232 of the Energy and Infrastructure s42A report, and not in Appendix A to the report.
- Retention of INFR-P1 (s32.017, s33.017, s35.017, s37.017 and s154.017);
- Retention of INFR-P2 (s32.018, s33.018, s35.018, s37.018 and s154.018);
- The alternate relief recommended in the s42A report regarding INFR-P4 (s32.019, s33.019, s35.019, s37.019 and s154.019);
- The deletion of INFR-P5 (s32.020, s33.020, s35.020, s37.020 and s154.020);
- The alternate relief recommended in the s42A report regarding INFR-P6 (recommended to become INFR-P5) (s32.021, s33.021, s35.021, s37.021 and s154.021);
- The alternate relief recommended in the s42A report regarding INFR-P7 (recommended to become INFR-P6) (s32.022, s33.022, s35.022, s37.022 and s154.022);
- The alternate relief recommended in the s42A report regarding INFR-R1 (s32.024, s33.024, s35.024, s37.024 and s154.024), noting however that I consider the additional recommended working *“not otherwise addressed by another rule in this chapter”* to be superfluous as there are no other rules which directly address underground/below ground level infrastructure. The relief however is accepted as the wording will not cause any issues to plan users;
- The alternate relief recommended in the s42A report regarding INFR-R2 (s32.025, s33.025, s35.025, s37.025 and s154.025);
- Retention of INFR-R5 (s32.028, s33.028, s35.028, s37.028 and s154.028);

- The alternate relief recommended in the s42A report regarding INFR-S2 (s32.032, s33.032, s35.032, s37.032 and s154.032);
- The alternate relief recommended in the s42A report regarding INFR-S4 (s32.034, s33.034, s35.034, s37.034 and s154.034);
- The alternate relief recommended in the s42A report regarding INFR-S5 (s32.035, s33.035, s35.035, s37.035 and s154.035);
- The alternate relief recommended in the s42A report regarding INFR-S6 (s32.036, s33.036, s35.036, s37.036 and s154.036);
- The amendments to INFR-S7 (s32.037, s33.037, s35.037, s37.037 and s154.037);

Earthworks S42A Report

- Retention of EW-O1 (s32.050, s33.050, s35.050, s37.050 and s154.050);
- Retention of EW-P1 (s32.051, s33.051, s35.051, s37.051 and s154.051);
- The reasoning concerning why the submissions on earthworks exemption were recommended to be rejected (s32.054, s33.054, s35.054, s37.054 and s154.054);
- The alternate relief recommended in the s42A report regarding EW-R11 (s32.053, s33.053, s35.053, s37.053 and s154.053); and
- The alternate relief recommended in the s42A report regarding EW-S4 (s32.054, s33.054, s35.054, s37.054 and s154.054).

8. Through this evidence, I seek alternate relief on the remaining submission points, which solely relate to the Energy and Infrastructure S42A Report that has been prepared for HS7. The reasoning for this is detailed as follows.

Standalone Nature of the Infrastructure Chapter

9. Submissions s32.012, s33.012, s35.012, s37.012 and s154.012 and s32.023, s33.023, s35.023, s37.023 and s154.023 essentially seek clarity regarding how the Infrastructure Chapter in the PDP interacts with other chapters.

10. The s42A Report recommends that this matter is addressed through Note 1 (titled *Provisions in Other Chapters*) in the chapter. I am comfortable with this approach. However, I consider that Note 1 as recommended by the Reporting Officer requires amendment.
11. The Reporting Officer recommends that the following sentence be added to Note 1 *“This Rules and standards in Part 3 - Area Specific Matters (zones) do not apply to activities managed under this chapter, unless expressly identified within the chapter.”*
12. This recommendation does not align with the direction set in the National Planning Standards. National Planning Standard 7.5 states that *“Provisions relating to energy, infrastructure and transport that are not specific to the Special purpose zones chapter or sections must be located in one or more chapters under the Energy, infrastructure and transport heading.”*
13. Note 1 as recommended by the Reporting Officer indicates that provisions relating to infrastructure may located in the zone chapters. This effectively undermines the National Planning Standards, and requires plan users seeking direction regarding network utilities to assess the network utility chapter, other district wide chapters and the relevant zone chapter in order to be able to determine the activity status of any given proposal. This is inefficient.
14. Consequently, I seek the following relief. Note, recommended amendments as per the S42A Report are shown in red, with my recommended amendments shown in blue (underlined for additional text and strikethrough for ~~deleted~~ text):

Amend Note 1 as follows:

Note 1	Provisions in Other Chapters
	The provisions in this chapter apply in addition to the provisions of the other <u>district wide</u> chapters in the District Plan and the plan should be read as a whole. This chapter also implements other chapters in the District Plan that do not have specific rules such as Sites and Areas of Significance to Māori and Mana Whenua. <u>This Rules and standards in Part 3 – Area Specific Matters (zones) do not apply to activities managed under this chapter, unless expressly identified within the chapter.</u> <i>Roads</i> are defined as a utility, however the rules in this Chapter do not apply to the construction, management, upgrading or use of <i>Roads</i> of the <i>Transport Network</i>. These activities are managed by Subdivision and Transport Chapters. <i>Airports</i> and approach control services are defined as <i>network utilities</i>. Some Airport Related Activities are also defined as <i>network utilities</i>. However, the rules in this Chapter do not apply to <i>Airport Activities</i> or <i>Airport Related Activities</i> within the Airport Zone (Chapter 3.15) and Transport Chapter.

INFR-O4

15. Submissions s32.016, s33.016, s35.016, s37.016 and s154.016 supported the intent of INFR-O4, however sought amendment so that it specifically required management of adverse effects of critical infrastructure within the context of the functional and operational need of that infrastructure.
16. The s42A Report, at Paragraph 248, states that the submissions are supported in their intent, but considers reference to functional and operational need is more appropriate as a policy, and therefore does not support the amendment sought.
17. I continue to be of the view that it is appropriate for functional and operational needs to be recognised through objectives, as well as policies.
18. The reason I consider it appropriate is that it immediately contextualises how effects are to be assessed. While the Resource Management Act 1991 seeks that adverse effects are avoided, remedied or mitigated, it also recognises that there is a need to provide for the ongoing

wellbeing of people and the environment. Infrastructure exists to provide for wellbeing, and, in some instances, to achieve its purpose, infrastructure might have an effect which cannot be completely mitigated due to the functional or operational need of that specific piece of infrastructure.

19. Therefore, I seek the following relief to INFR-O4:

Amend INFR-O4 as follows:

Adverse effects from the construction, maintenance, upgrade and use of ~~critical~~ infrastructure are managed, including by taking into account the functional and operational needs of the infrastructure.

INFR-R4

20. Submissions s32.027, s33.027, s35.027, s37.027 and s154.027 sought an amendment to INFR-R4 that replacement support structures are also recognised, and compliance with all INFR standards is achieved.
21. The submission is accepted in part. The s42A Report, at Paragraph 353, notes that the inclusion of 'or replacement' and 'including buildings' is unnecessary as it is provided for in other rules. On reflection, I agree, and therefore do not consider a need for these to be included in the rule.
22. However, the recommended relief in the s42A Report does discuss replacement support poles, and, based on the above, I consider this to be unnecessary.
23. The recommended relief also provides specific reference to electric vehicle charging stations. While I consider that it is appropriate these are provided for as permitted activities, the rule is now confusing. The recommended rule now, by my reading, states that the only permitted above ground infrastructure is an electric vehicle charging station. I do not think this is the intent of the rule.
24. Consequently, I request the following relief:

Amend Rule INFR-R4 as follows:

INFR-R ~~14~~	Establishment of above ground <i>infrastructure</i> (including <i>Green Infrastructure</i>) <u>not otherwise addressed by another rule in this chapter.</u>	
All Zones exempting the General Rural, Rural Lifestyle, Field Days and Camp Columba	Activity status: Permitted Where: 1. ~~Other than where existing support poles structures are used,~~ <u>the above ground infrastructure is not a lines are to be located underground and replacement support poles meet the permitted provisions in INFR R3(1), and</u> 2. ~~electric vehicle charging stations that complies with~~ <u>Compliance with all INFR Standards is achieved.</u>	Activity status where compliance is not achieved with: INFR-R4(1 and 2): Restricted Discretionary Matters of discretion: 1. The reason for the lines being above ground. 2. The amenity values of the respective zone and the extent to which any adverse visual amenity effects can be avoided, remedied or mitigated.

25. In my view, the amendments provide clarity and widen the scope so that all above ground infrastructure, except lines, is permitted in the urban zones, and as such aligns with what is permitted under INFR-R4.3 for the rural zones.

INFR-R8

26. Submissions s32.029, s33.029, s35.029, s37.029 and s154.029 sought Controlled Activity status for panel and dish antenna up to a certain size, but which do not meet the permitted activity regulations of the NETSF.
27. The NESTF through a number of its permitted regulations, permits panel antenna up to 0.7m wide¹ and dish antenna of varying sizes between 0.38m and 1.2m in diameter².

¹ Including Regulations 27(3), 31(3), 33(3) and 35(2)(e).

² Including Regulations 27(4), 29(4), 31(4), 33(3), and 35(2)(f).

28. The submissions sought that panel antennas which cannot meet the NESTF be permitted where they do not exceed 0.8m in width, and dish antenna are permitted up to 1.2m wide in a residential zone and 3m wide in any other zone.
29. In terms of the panel antenna, in my view, a difference in width between 0.7m and 0.8m would be very difficult to discern in terms of effect, with a 0.8m wide panel antenna having the same or similar effects to a permitted 0.7m wide panel antenna. However, I understand the additional width sought would provide for greater efficiency in terms of the operation of antenna, and as such that is why the additional width is being sought.
30. Turning to dish antenna, I have discussed the additional diameter with the telecommunications companies, and have refined the width sought to 0.6m in diameter within residential zones. In my view this provides for an additional amount of diameter when compared to the NESTF, and provides the same benefits as the additional width sought for panel antenna, and is unlikely to result in noticeable adverse effects on the environment. A 3m diameter remains sought in all other zones.
31. The submissions also sought that the INFR-8 provides for Controlled Activity status for any activity which does not meet the NESTF permitted regulations, but otherwise complies with the INFR standards. However, on reflection and re-reading of INFR-R8 I consider that INFR-R8, through use of the words *"and are not expressly provided for as a controlled activity in Part 3 of the NESTF"* in the title to the rule, already makes it clear that Controlled Activity status under the NESTF is provided for.
32. Consequently, the following relief is requested to INFR-R8:

Amend INFR-R8 as follows:

INFR-R8

Telecommunications lines, cabinets, poles and new antennas regulated by the NESTF that do not meet the permitted activity standards in Regulations 20, 21, 22, 27, 29, 31, 33, 35 or 37 of the NESTF and are not expressly provided for as a controlled activity in Part 3 of the NESTF.

All Zones

Activity status: Controlled

Where:

1. for panel antenna a width of 0.8m is not exceeded;
2. for dish antenna, the antenna does not exceed a diameter of:
 - a. 0.6m in a residential zone; or
 - b. 3m in all other zones.

Matters of Control:

3. The visual effect of the antenna, the benefits derived from the antenna and the potential impact on the levels of service or health and safety if the work is not undertaken.

Activity status: Restricted Discretionary

Matters of discretion:

14. Where 1 or 2 is not met, the functional needs and operational needs of, and benefits derived from, the network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken.

INFR-R9

33. Submissions s32.030, s33.030, s35.030, s37.030 and s154.030 sought Restricted Discretionary rather than Discretionary Activity status for the establishment of new infrastructure within

specified areas. The s42A Report, at Paragraph 389 recommends that the submission be rejected, on the basis that Restricted Discretionary Activity status is inappropriate within specified areas.

34. In my view, Restricted Discretionary Activity status is appropriate within any given specified area. If new infrastructure is proposed within a specified area, the resource consent application typically considers the effects of the proposal on those areas, alongside any functional and operational needs of the infrastructure, as well as the benefits it will provide. Given this, Restricted Discretionary activity status is suitable.
35. Further, the amendments to the rule recommended by the Reporting Officer propose the inclusion of hazard areas, in particular land inside of the river side of a Southland Regional Council Stopbank, and critical infrastructure on Land subject to a high or very high risk of liquefaction.
36. The recommended inclusion of these within INFR-R9 creates an inconsistency between the PDP and Regulation 57 of the NESTF. Regulation of 57 of the NESTF is as follows, and clearly exempts regulated activities under the NESTF³ from having to comply with District Plan rules about natural hazards:

57 District rules about natural hazard areas disapplied

- (1) A territorial authority cannot make a natural hazard rule that applies to a regulated activity.*
- (2) A natural hazard rule that was made before these regulations came into force, does not apply in relation to a regulated activity.*
- (3) In this regulation, natural hazard rule means a district rule that prescribes measures to mitigate the effect of natural hazards in an area identified in the district plan as being subject to 1 or more natural hazards.*

37. Section 6.11 of the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 Users' Guide, published by the Ministry for the Environment (August 2018) confirms the exemption of regulated telecommunications activities from having to comply with District Plan natural hazard rules, via the following statement:

³ Regulated activities under the NESTF include all telecommunications activities (lines, cabinets, antennas and poles) in all zones, except for new poles on private sites in urban areas.

Regulation 57 makes it clear that natural hazard rules in district plans do not apply to a regulated activity under the NESTF. It also makes clear that territorial authorities cannot make natural hazard rules that apply to regulated activities under the NESTF. This is because resilience is already factored into industry practice, and they will either avoid hazard areas or engineer structures to be resilient to the hazard risk. Natural hazards encompass the full breath of hazards including flooding, instability, earthquake and climate change.

38. To provide a summary of the *industry practice* referred to in the above quote, the telecommunication companies rely on local authorities to identify hazards in their city or district. The companies then have resilience requirements as essential infrastructure networks and lifeline utilities under the Civil Defence Emergency Management Act 2002 (CDEMA). Under section 59 of the CDEMA a lifeline utility is required to take “*all necessary steps to undertake civil defence emergency management*” and be able, under section 60, to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency”.
39. In my experience, telecommunication network resilience to natural hazards is achieved by avoiding the hazard in the first instance, but where the hazard cannot be avoided for the infrastructure to provide its function, designing the infrastructure to be as resilient as possible to the hazard.
40. Through the New Zealand Lifelines Council (NZLC) that the telecommunication companies are a part of, and 15 Regional Lifelines Groups, New Zealand’s lifeline utility organisations work together on projects to understand and identify ways to mitigate impacts of hazards on lifeline utility infrastructure. NZLC in 2017 undertook its first infrastructure vulnerability assessment which was updated in 2020. This report highlights the resilience of telecommunication networks and some areas for focus on improving resilience. Telecommunication network resilience comes from a variety of ways and is constantly evolving and learning from the events response assessments:
 - multiple networks (different providers offering alternative networks) provide for redundancy;
 - multiple technologies (fibre fixed networks available alongside mobile networks);
 - robustness (design codes for strength) with specific engineering design and certification taking into account the natural hazard information available. Consultancy companies such as Aurecon and WSP provide design and engineering certification for each new site

(includes guidance that influences new-site selection in regard to natural hazard risk and mitigation requirements) and upgrading of existing sites;

- providers building their own networks with resilience in mind (building redundancy into their networks so that network component failures have a minimum impact);
- making arrangements to enable direct-to-satellite connectivity, which will enable mobile phone users to initially send and receive text messages, and later make calls, including to emergency services, if the mobile network is down;
- provide emergency roaming for 111 calls. This means, for example, if the Spark or One NZ networks are down, their customers can make 111 calls using the 2degrees network;
- fleet of temporary network solutions such as Cells on Wheels (CoW) or Cell on Platform (CoP) to restore any network components damaged during an emergency while the permanent asset is being repaired; and
- commercial imperative to keep customers connected.

41. Telecommunications are a complex of lifeline utility given that users have access to multiple networks including both mobile networks and fixed line fibre and copper networks.

42. The diversity of interconnected networks has the advantage that via automatic failover arrangements between the operator's connectivity for customers will continue. NZLC has identified that the CDEMA obligations on private operators' infrastructure such as telecommunication is difficult to measure or enforce for private companies. The Building Code does mandate standards around critical buildings housing telecommunications equipment though design standards for other components of the network, such as mobile facilities, are not prescribed. Crown Infrastructure Partners as part of Government managed initiatives such as ultra-fast (UFB 1 & 2) and rural broadband infrastructure (RBI 1 & 2) rollouts or the Blackspots initiative, does have a prescribed construction standard. Although there is no network construction standard outside those contractually managed by Crown Infrastructure Partners, the telecommunication companies constantly review their networks including via:

- Commence Commission as the regulator, who assess and report on the industry annually looking at competition in, and the performance and development of, telecommunications in New Zealand;

- Commerce Commission monitoring of asset quality in areas without competition;
 - Ministry Business Innovation and Employment (MBIE), which is responsible for maintaining a robust regulatory environment for the information and communications technology (ICT) sector. The Telecommunications Act 2001 provides for investigations and reduce incentives for regulated parties to “game” the process or proceed slowly for strategic reasons’ (MBIE 2018c);
 - The National Code of Practice for Utility Operators' Access to Transport Corridors (the Code) under the Utilities Access Act 2010, which has a process for requiring a local authority to comment and request information when a network utility is proposing to work in the road; and
 - Regional Lifeline assessments and reviews including post specific significant events reports such as Christchurch earthquakes, provide recommendations for improving network resilience.
43. On this basis, there is no need for a territorial local authority to further regulate the resilience of telecommunication networks. Such an approach has been accepted by Kaikoura District Council through their Plan Change 3, and is up for consideration in other current processes, including the Proposed Wellington City District Plan and Change 1 to the Wellington Regional Policy Statement.
44. Consequently, the following relief is requested to INFR-R9:

Amend INFR-R9 as follows:

INFR-R9	Establishment of new <i>infrastructure</i> within specified areas
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All Zones

Activity status: Restricted Discretionary

Where:

1. the establishment of new infrastructure is within:

(a) an Outstanding Natural Landscape or Feature

(b) a *Significant Natural Area*

(c) 20m of the Maitara River

(d) Is critical infrastructure in the Maitara River Floodway

(e) a site containing an item on the Heritage Schedule, a *Notable Tree*, ~~a Site of Significance to~~

~~Māori~~ or an *Archaeological Site*

~~(f) land inside of the river side of a Southland Regional Council Stopbank~~

~~(g) is critical infrastructure on Land subject to a high or very high risk of liquefaction~~

Matters of Discretion:

2. The effects on the specified area within which the network utility is proposed;

3. Any functional need or operational need which means critical infrastructure must be located within a specified area;

4. The benefits derived from the critical infrastructure, including any potential impacts on the levels of

INFR-S1

45. Submissions s32.031, s33.031, s35.031, s37.031 and s154.031 supported the intent of INFR-S1, but sought that the navigable rivers referred to in the standard be included on the planning maps so it is abundantly clear what waterbodies the standard applies to. This was recommended to be rejected (Paragraph 409 of the s42A Report) on the basis that *water bodies change in flow and location and the mapping is likely to be out of date quickly*. The s42A Report then suggests that *common usage of the term is utilised, and a judgement call made on whether or not a water body is considered navigable*.
46. Making a 'judgement call' as to whether or not a proposal meets a standard is fraught. A standard should be absolutely precise and not subject to interpretation. In my view it would be difficult for an applicant to act with any certainty or a consenting authority to issue a potential Certificate of Compliance, when reliance is placed on a judgement call.
47. This issue, in my view, could be alleviated in one of three ways:
- Map the navigable waterbodies in the District Plan maps;
 - Name the navigable waterbodies in standard INF-S1; or
 - Define what a navigable waterbody is in the District Plan.
48. In terms of the relief sought for this standard, any of the three options provided above would address the issue. My preference would be that the navigable waterbodies are named in the standard. This could be achieved as follows:

Amend Standard INFR-S1 as follows:

INFR-S1	Lines over <i>waterbodies</i>	
All Zones	1. Above-ground lines are to be at least 10m above the water level of ~~a navigable waterbody~~ <u>the following waterbodies [insert names]</u> when at ~~its~~ maximum navigable flow or attached to, and no lower than, existing structures over ~~these aforementioned~~ ~~a~~ ~~navigable waterbodyies~~ <u>or otherwise comply with NZECP34:2001.</u>	Activity status where compliance is not achieved: Restricted Discretionary Matters of discretion: 1. The <i>effects</i> on navigation. 2. Alternative locations for the <i>structure</i>. 3. The <i>functional needs</i> and <i>operational needs</i> of, and benefits derived from, the <i>structure</i>, including the potential impact on the levels of service if a <i>structure</i> of the proposed size is not approved. 4. The <i>amenity values</i> of the respective zone and the extent to which any adverse visual amenity <i>effects</i> can be avoided, remedied or mitigated. 5. Potential impacts on mahinga kai activities

INFR-S3

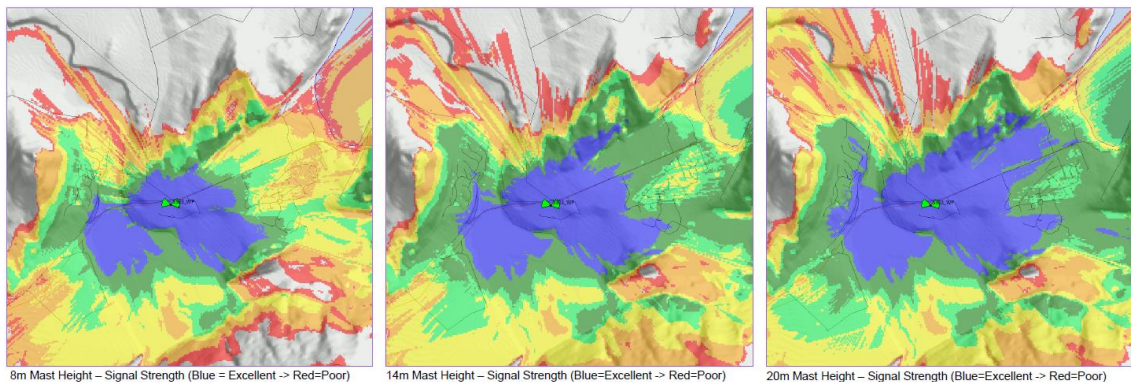
49. INF-S3 sets the permitted standard for pole and mast heights, as well as the matters of discretion for poles and masts which cannot meet the permitted height standard.
50. Submissions s32.033, s33.033, s35.033, s37.033 and s154.033 sought amendments to the standard as notified, being:
- The maximum height clearly excludes any lightning rod or GPS antenna;
 - A 25m permitted height in any industrial zone;

- A 35m permitted height in any rural zone;
- The underlying zone building height plus 5m in all other zones; and
- Allowing an additional 5m of height for co-location (where there are two or more providers on a single pole/tower);

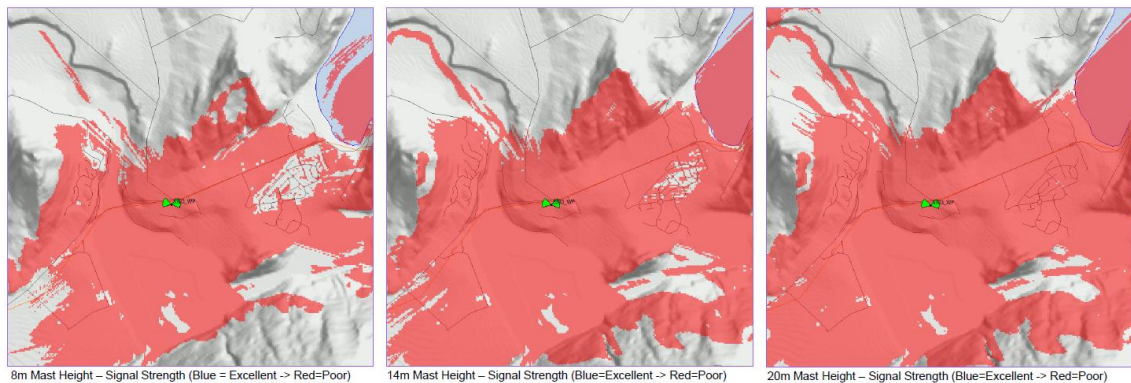
51. The recommendation in the S42A Report is that while the submission is *“potentially supported broadly in its intent, creates a complicated standard that significantly raises the permitted height limit for poles and masts”* (Paragraph 444). With regard to the additional 5m sought for co-location, at the same paragraph, the Reporting Officer considers that *there are other motivations to encourage co-location, for example, operational and construction cost savings.*

52. Antennas, which are invariably located at the top of a pole or mast, 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 mast height provides better outdoor and indoor coverage for end users, as the higher mast height extends above local ‘clutter’ to provide line of sight:

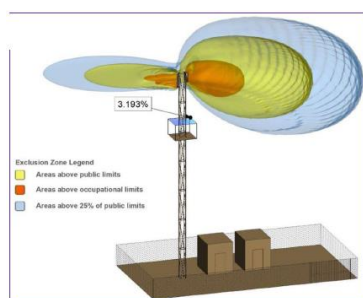
Outdoor Coverage:



Indoor Coverage:



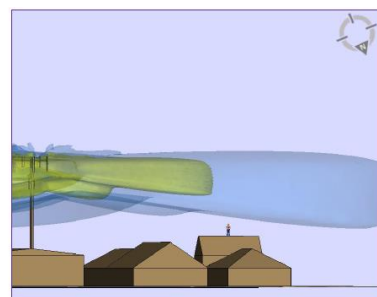
53. Clutter is commonly created by buildings and trees. By providing a clearance of 5m from building height in urban zones (except industrial), buildings should not, as of right, 'block' antenna signals. As well as these provisions affecting potential future sites, they also create a potential reverse sensitivity effect on existing sites.
54. All proposed antennas must be assessed against New Zealand Standard 2772.1:1999 Radiofrequency fields - Maximum exposure levels. 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.
55. Essentially, radiofrequency engineers use a compliance software to establish and maintain safety compliance. Essentially, the software requires inputs including tower 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

56. Through providing pole heights that exceed the permitted building heights without enabling a corresponding increase in mobile telecommunication facility height potentially allows people to be exposed to greater levels of radiofrequency.
57. As is detailed in the corporate evidence, telecommunication networks are undergoing a migration towards 5G technology nationwide. I understand that 5G technology has a higher bandwidth, which allows a greater amount of data to be sent and received. As a result, the radio frequency fields emitted from 5G antennas are larger than previous generations of technology. Consequently, to ensure compliance with the NESTF, which regulates all radiofrequency emissions from the Telcos, antennas need to be placed on correspondingly higher poles.
58. The provision for providing for poles and masts that are 5m above the permitted building height for the zone goes some way to addressing the above matters. The standard has been used in

other District Plan's around the country, including the decisions version of the Proposed New Plymouth District Plan.

59. In terms of the pole heights sought for the industrial zones it is typical for these zones to have the least amount of urban amenity, and as such are suitable for taller pole structures. Enabling taller pole structures in these zones can reduce the need for mobile phone facilities in potentially more sensitive urban zones.
60. In regard to 35m in rural areas, from my experience I understand that one of the most significant barriers to the efficient functioning of a mobile phone antenna is the presence of large trees. I have been told by radiofrequency engineers that large trees, and in particular large pine trees, have an ability to absorb the radio waves emitted by a mobile phone antenna, effectively blocking the facility from users within the cell that the facility serves, but are on the opposite side of the trees. I note this matter is also discussed in the corporate evidence.
61. I understand that this is particularly an issue in the Southland region, where stands of large trees have been planted as shelterbelts.
62. As such, where shelterbelts are prevalent, the telecommunication companies have generally been seeking a 35m permitted height limit in rural areas. By way of example, the General Rural Zone in the Partially Operative Selwyn District Plan and the rural zone of the Christchurch District Plan have a 35m permitted height limit.
63. I also wish to draw attention to the NESTF, as it has an essential role to play in determining the activity status in rural zones.
64. Regulations 34 and 35 of the NESTF regulate new poles in rural zones (including rural lifestyle), permitting poles provided they do not exceed 25m in height, 6m in width, headframes up to 6m wide, a setback of 50m from any building used for residential or educational purposes, panel antenna up to 0.7m wide and dish antenna up to 1.2m in diameter.
65. If any of the these NESTF standards are not met, under Regulations 14 to 16, the activity status of the District Plan informs what the activity status is to be under the NESTF.
66. Of particular relevance to the 35m permitted height sought in the Gore District Plan is Regulation 14. Regulation 14 states that:

14 *Controlled Activities*

(1) A regulated activity is a controlled activity if –

(a) it is carried out not in accordance with the standard [in this instance the aforementioned Regulations 34 and 35 of the NESTF]; and

(b) under the relevant district plan or proposed district plan, it is a permitted activity or controlled activity.

(2) For the purposes of section 87A(2)(b) of the Act, control is reserved over the subject matter of each regulation (or component of a regulation)—

(a) compliance with which is part of the standard; and

(b) that is not complied with.

67. As such, with the relief sought to increase the permitted height of a pole/mast in the rural zones to 35m would result in the need for a resource consent application for any proposed facility in the rural zone which is between 25m and 35m high. The matter of control would be the effect of the additional height above 25m, and that control, in my view, gives Council sufficient certainty to address any residual effects which might exist from such an application, including in a rural lifestyle zone.
68. I also would like to note that, in my experience, across the country in those situations where I have been asked by the Telcos to seek resource consent for new facilities in rural areas which are greater than 25m high, I do not recall there being any particular issues, need for written approvals or need for specific landscape and visual effects assessments, and that resource consents were granted promptly.
69. With regard to an additional 5m for co-location, while the “motivations” referred to in the s42A Report do exist, the primary driver is the ability for a provider to serve its customers. As stated above, this is achieved through height. As such, additional height is, in my view, necessary to achieve co-location. I consider 5m of additional height on a single structure to be a preferential outcome to the alternative, which is two structures of the same height in close proximity.
70. In my view, poles and masts are generally relatively slimline structures which provide a necessary infrastructure network to an area. It is also my experience that people who consider

that a facility has adverse effects do not necessarily relate their opinion to the height of the facility, but whether it exists in a certain location or not.

71. This experience comes from being involved in many hundreds of RMA applications over the past 17 years, including for Certificates of Compliance and Resource Consents. Some of the more contentious applications, from a community opposition perspective, have been where a Certificate of Compliance has been sought, as opposed to a resource consent in an industrial area.
72. Turning to lightning rods and GPS antenna, these are both small structures. Lightning rods vary in length but are typically 12mm in diameter. GPS antenna are typically a mushroom shape, fit within an area of 40mm by 40mm, and approximately 15mm high. Given the small size of each of these structures, their addition to the top of a telecommunications facility is imperceptible. Further, lightning rods are specifically excluded from height calculation within the NESTF, excluding them from height in the PDP would provide consistency between NESTF regulated and PDP regulated telecommunications facilities.
73. Based on the above, the relief sought to INFR-S3 is:

Amend Standard INFR-S3 as follows:

INFR-S3	Lines over <i>waterbodies</i>	
Rural Zone, Rural Lifestyle Zone, General Industrial Zone and Light Industrial Zone	The maximum height of any utility pole or mast (<u>excluding any lightning rod or GPS antenna</u>), <u>and associated electricity lines</u> shall be: 1. ~~25m~~ <u>35m</u>	Activity status where compliance is not achieved: Restricted Discretionary Matters of discretion: 1. Alternative locations for the <i>structure</i> . 2. The <i>functional needs</i> and <i>operational needs</i> of, and benefits derived from, the <i>structure</i> , including the potential impact on the levels of service if a <i>structure</i> of the proposed size is not approved. 3. The <i>amenity values</i> of the respective zone and the extent to which any adverse visual amenity <i>effects</i> can be avoided, remedied or mitigated. 4. Impacts on ~~Ngai Tahu~~ cultural values, including those listed in the MW-2.3
General Industrial Zone and Light Industrial Zone	2. <u>25m</u>	
All Other Zones	~~23. 13m~~ <u>The underlying permitted building height for the zone + 5m.</u>	

Temporary Activities

74. Submissions s32.038, s33.038, s35.038, s37.038 and s154.038 sought the inclusion of a new rule permitting temporary network utilities that are in place for no longer than 12 months. I note that the Reporting Officer is reliant on the recommendations made to TEMP-R10, which was addressed through Hearing Stream 5.
75. I remain of the view that, in accordance with the National Planning Standards, the provisions relating to network utilities, including temporary provision, should be located within the network utilities chapter.

76. Considering TEMP-R10 specifically, it does not give effect to the submission. TEMP-R10 is limited to network utilities that provide an emergency service, or are related to another temporary activity. While telecommunications assist emergency services through providing for communication, they do not form an emergency service.
77. Temporary facilities can provide a community with an essential critical infrastructure service where there has either been a failure to an existing facility, a rapid increase in population, or while a more permanent site is being sought.
78. Consequently, I seek the following relief, which seeks amendment to TEMP-R10, and relocates the rule to the Network Utility Chapter:

Amend Rule TEMP-R10 as follows:

<u>~~TEMPINFR-~~</u> <u>R110</u>	<u>Temporary Network Utilities</u>	
<u>All zones</u>	<u>Activity Status: Permitted</u> <u>Any temporary network utilities that:</u> <u>1. are required to provide an emergency service; or</u> <u>2. are related to, and required in respect of, a permitted temporary activity specified in this chapter of the District Plan; or</u> <u>3. are located on a site for a duration which does not exceed 12 months.</u>	<u>Activity status where compliance is not achieved:</u> <u>Restricted Discretionary</u> <u>Matters of discretion:</u> <u>1. The extent and effect of the duration of the operation on the amenity values of the surrounding properties.</u> <u>2. The extent of adverse effects arising from parking of vehicles and traffic generated by the activity.</u> <u>3. The extent of adverse effects arising from noise.</u> <u>4. Waste minimisation and management measures.</u> <u>5. Health and safety.</u>

Concluding Comments

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

A handwritten signature in blue ink, appearing to read 'Tom Anderson', with a stylized, cursive script.

Tom Anderson

18 October 2024