

The specific provisions of the plan change **5H** that our submission relates to are as follows:

CCC District Plan Chapter 11 Utilities and Energy .

11.7.1 Permitted Activities Rule. 11.7.1 P1(d) concerning freestanding communication utilities (towers, poles, masts) and P2 (b) concerning communication utilities attached to a building, including ancillary equipment.

From the Section 32 (RMA-required) report p8:

“The purpose of the Plan Change is to change the permitted activity standard for antennas (other than dish antennas) from a 1.5m² surface area” - (Note: total area of all 6 faces of the antenna) “to 1.5m² surface area of the largest antenna face.” (area of the largest face only).

“The majority of panel antennas used by Mobile Network Operators will not meet the above mentioned Rules 11.7.1 P1 (d) and 11.7.1 P2 (b).”

Section 32, report page 11, Table 5.25 Purpose of the Proposal

The purpose of the Plan Change as proposed :

-“to avoid unnecessary resource consents being required for necessary utilities at a scale where the effects are appropriately managed.” (Our underlining)

Section 32 page 12 Table 5.25 Evaluation (e)

“...this will remove unnecessary constraints and costs while delivering significant benefits to the community.

...The scale of the antenna size enabled will be commensurate with that provided for widely throughout NZ and is appropriate in the context of the scale of the support structures enabled and the scale of buildings on which antennas may be located.”(Our underlining.)

Submitters Note 1: The ‘unnecessary costs and constraints’ referred to are the costs and constraints that are borne by the Mobile Network Operators - Spark, Vodafone et al., not by the CCC.

Submitters Note 2: This proposal is principally about vertically mounted antennas on the sides of buildings, as well as those panel antennas mounted on poles on the roofs. The former is something we have not seen a lot of yet in Christchurch.

What appears to be the implication is, that the MNO applying will get its consent anyway, by way of the discretionary powers of the Christchurch City Council consenting authority, even if the antenna arrangement doesn’t quite fit the permitting requirements of the District Plan as it currently stands.

The implied assumption, further, is that there is nothing unsafe about the deployment of larger sizes of antennas, as any “adverse effects “ of, among other things, radiofrequency fields are always “appropriately managed” .

It will be seen below that this STANZ submission is based on examining these two concepts, - “adverse effects” and “appropriate management” and the difficulty, even currently the unlikelihood, of finding a consensus as to what each looks like, on the one hand in theory and on the other hand from the street, in practice, when it comes to radiofrequency field exposure .

Section 32 ,RMA Evaluation : Background 3.1.1

The Certificate of compliance for a new mobile site, that Spark was waiting for in July 2019, was what prompted a joint approach to CCC from Spark and other telecommunications providers.

In a nutshell, why must we waste time and money on this process, this joint petition from the MNOs is asking.

A Certificate of Compliance is issued after the cell tower – freestanding utility, or building-mounted utility – panel antennas on side of building or rooftop, -- has already been in operation for a couple of months or so. It is the actual resource consent.

The Objective and Policies in District Plan Ch. 11.2. support the discretionary power of the Council, in what, from one viewpoint, can be regarded as retrospective permission , after a large investment in plant and installation has been made by the mobile network operator(s). We can't know if there has ever been a case in Christchurch of the MNO having to re-configure an installation at the behest of the Council after RF (radiofrequency) fields are found to exceed public exposure limits to an unacceptable degree . It is quite possible.

Submitter Note 3. Any area where RF fields exceed public exposure limits where the public have reasonable access must have signs installed. The signs must comply with standard AS 1319 and a common example is a yellow warning triangle with a “beaming mast” icon in the centre. This is generally adhered at pedestrian height. The size is seemingly optional. These we find in association with cell towers/poles, and their cabinets but , lacking a cherry picker hoist, we find it as yet not possible to know what is provided in association with vertically mounted panel antenna.

“11.2.1.4 Policy – Communication Facilities:

- a) ‘Recognise the importance of radiocommunications and telecommunication utilities by
- i Providing for the development and use of radiocommunications and telecommunication utilities
 - ii Acknowledging that the management of adverse effects of radiocommunications and telecommunication utilities is constrained by technical and operational requirements ‘.’ (Our underlining.)

Re: ii - The word ‘constrained’ means “ restrict(ed) severely as regards action, behaviour etc”, (Concise Oxford Dictionary, 1990). This acknowledgement of constraint does cast doubt upon the assurance of ‘appropriate management’, in particular of exposure to radiofrequency fields.

Other Identified potential adverse effects of radiocommunication and telecommunication facilities in the NESTF (2016)* are threats to :- visual amenity landscapes, significant habitats of indigenous vegetation, significant habitats for indigenous fauna, outstanding natural landscapes or features, historic heritage values. There are other societies and institutions that task themselves with guardianship of those things.

Of the listed 'adverse effects' of radiocommunication and telecommunication facilities*, STANZ is concerned with the adverse effects of radiofrequency exposure, always last in the list of effects.

**in National Environmental Standards for Telecommunication Facilities (2016) and In Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 USERS GUIDE Ministry for the Environment and MBIE , Aug 2018*

STANZ , (Safer Technology Aotearoa New Zealand) is a recently incorporated society whose aim is to challenge the potential threats, from the adverse effects of radiofrequency exposure, to the health of the people who:

- live and/or work or go to school or hospital in this district,
- and particularly in the urban/residential zones,
- and especially those who have developed sensitivity and hypersensitivity to electromagnetic fields, in particular radio frequency fields, associated with digital technology.

Electrohypersensitivity (EHS) is a biophysical environmental health problem that is emerging worldwide more and more. It involves the habitat of human beings, which habitat is interwoven and shared within a biosphere with many other forms of plant and animal life, that may also be susceptible to electrohypersensitivity.

Summary of Proposed Plan Change: Section 32 Evaluation , 3.2 summarises the plan change to relevant current Christchurch District Plan provisions:

3.2.5 "This plan does not to seek to change any of the objectives and policies in Chapter 11 Utilities and Energy. It seeks to amend two rules to better achieve the objectives and policies of the District Plan particularly in regard to recognising the benefits of utilities, acknowledging that the management of adverse effects of radiocommunications and telecommunications utilities is constrained by technical and operational requirements, and appropriately managing the adverse effects of utilities taking into account those other considerations." Therefore:-

Our submission is that : STANZ opposes the specific provisions of the plan change.

We are proposing that the status quo remains in place continuing into, and to the end of, 2021.

The **Reasons** are, in no particular order of priority:-

1. that this favours **a later and more comprehensive plan change** that will include other antenna parameters and the built environment factors. Ideally the status quo would continue for the

duration of the presentation, commentary and submissions, and final acceptance of, the latest CCC Long Term District Plan which process starts at the end of February, 2021 that is to say, very shortly, and ends nearer the end of 2021.

The public, even including local government, has been starved of information and of the opportunity to participate in the discussions about cell towers and antennas. This lack of transparency has created suspicion and distrust towards the mobile network operators from some in the community. E.g. “What can the oversize-panel-antenna issue be paving the way for?”

Section 32, report, cost/benefit analysis page 15. Social benefits of **not** acting.

“The status quo provides for potentially more public participation in mobile phone projects through a larger number of projects requiring resource consent.”

2. Our focus is on the formula : ‘Adverse effects appropriately managed.’ To test the notion of appropriate management we theoretically could ask for more detailed information from the council about the receiving of pre-commencement and post commencement reports, as to how stringent the requirements are for these, and how regularly they accompany the commencement of operation of antenna sites. What provision is there of evidence that the actual radiofrequency field levels at those places in the vicinity of the (telecommunication) facility that are reasonably accessible to the general public, will comply with NZS 2772.1.? That information would be difficult for us to obtain and would certainly not fit in to the timeframe of this submission.

This refers to Part 7 of (Regulation 55) of the NESTF (2016), which requires compliance with the Standards NZ standard NZS 2772.Part 1: 1999 Radiofrequency fields Part 1 – Maximum exposure levels – 3 KHz to 300GHz.

We have chosen instead to back our submission with two cases, two examples of recent installations, one freestanding and one vertically-(wall)-mounted. What does the examination of these two examples tell us about the current state of appropriate management of adverse effects, insofar as we can investigate them without of course being able to measure exposure? One example concerns RF warning signs - a health and safety requirement. The other example concerns the placement of antennas near sensitive activities. Sensitive activities include care facilities, pre-schools, healthcare facilities and hospitals and some others. In this case it is a hospital. These two examples are intended for presentation verbally at the submission hearing.

3. Fibre optic cabling. This is an aspect of internet provision that is not mentioned in the proposal for Plan Change 5H.

However one of the expected benefits stated of the Plan Change is the improvement of the lot of the person working from home, which has been the phenomenon of 2020 due to the Covid-19 pandemic. Currently well over 80% of residences in New Zealand have a fibre optic connection. The percentage of fibre optic connections for business premises is not known to us. There is not a mention in the Section 32 evaluation report of the actual current and future superior performance for home workers of fibre optic, because strictly speaking it is out of the scope of the proposal. But the change proposal over-rates the benefit of, and need for, wireless broadband.

4. Urban density = antenna density. The Council has been in the news lately on the topic of urban density and the policy of central government about loosening restrictions on height of urban buildings, particularly any 5-storey restriction. Antennas vertically mounted on walls need to be above 15 metres at their lowest point of their support structure. If we have more high buildings in the urban landscape of this small provincial city, (and we don't have to) we can expect to see more and more of these antennas, and closer and closer together, because, Section 32, RMA report page 17:-

“NZ mobile operators are currently upgrading their networks to 5G technology.”

We cannot discuss the issue of urban density, without hauling up, even if left unsaid, the underlying issue of “air density”, or “dense air” - the phenomenon of the crowding of the 3D urban envelope with wireless antennas, which means the perfusion of the air space both outside and inside buildings with radiofrequency field exposure at much greater levels. Labelling it as an ‘adverse effect’ is understating the problem. It is misleading. Radiofrequency (RF) fields are hazardous, hence the warning signs. A spoiled view, whilst an adverse effect, does not need a warning sign.

We should be aware and planning, now. Mobile network operators are going to be leasing walls and rooftops of buildings publicly owned and buildings privately owned. We need to know how all this is going to work. We need to know who sets and determines the leases and how it's done.

We seek the following decision from the Council: - To postpone this proposed Plan Change 5H

Every three years we need a new Long Term (10 year) district plan. The year 2021, at the beginning of March, three months away, is the next time to present a new plan for submissions.

We suggest that the CCC makes the control of urban and suburban Dense Air a part of this planning for the first time. Dense Air affects every single one of us now, and will go on increasing to extents that we have never yet experienced in New Zealand. This need not go dangerously, given the wise investment in fibre optic cabling that the NZ government, in comparison with other jurisdictions, has already made, and if we take other mitigating or avoidance strategies that can be chosen and/or engineered.

We have to decide as a community how much we can afford to be impacted, and while we are still on the right side of safety. Worldwide there is a lot of scientific and clinical research work ongoing in this area, especially outside the USA. We need to take more heed, not refuse to engage with it.

Are resource consents for wireless antennas a good thing? Every new installation and every renewal of a site is likely to involve antennas of a newer variety and purpose. New stages may be added to the same site – “progressive installation”. The front surface area of a panel-shaped covering is not the most worrisome aspect of panel antennas, which are often hidden inside tube-shaped shrouds. Mounted high on buildings, many panel antennas can hardly be noticed or seen properly.

It is what the antennas are doing that is the issue. Resource consents are appropriate management.

STANZ says – YES! Resource consenting for wireless antennas is good appropriate management.

For the Committee of Safer Technology Aotearoa New Zealand Inc.

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