



Ministry for the  
**Environment**  
*Manatū Mō Te Taiao*



**Ministry of Business,  
Innovation & Employment**

# Proposed amendments to the National Environmental Standards for Telecommunication Facilities 2008

Report on submissions

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# 1 Introduction

## 1.1 Background

The Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations (NESTF) came into effect in 2008. The NESTF was developed to provide a nationally consistent planning framework for the radiofrequency fields of all telecommunication facilities operated by a network operator licensed under the Telecommunications Act 2001, as well as some telecommunications infrastructure on road reserves that have low environmental impact.

To ensure the NESTF continues to meet its objectives, proposals were made to widen the scope of the current NESTF to bring it up to speed with the rapid development of the telecommunications sector since 2008. The *Proposed Amendments to the National Environmental Standards for Telecommunication Facilities: Discussion Document* was released by the Ministry for the Environment and the Ministry of Business, Innovation and Employment on 3 March 2015 for public consultation. A copy of the public notice is included in Appendix A of this report.

The proposed amendments, as notified for consultation, address multiple issues in relation to both widening the scope of the NESTF and making minor amendments to the NESTF mainly for clarification. The issues and subsequent proposed amendments were set out in the discussion document in sections 2 and 3. The proposals are outlined in full in Appendix C.

Along with the discussion document, the Ministry for the Environment and the Ministry of Business, Innovation and Employment also released the:

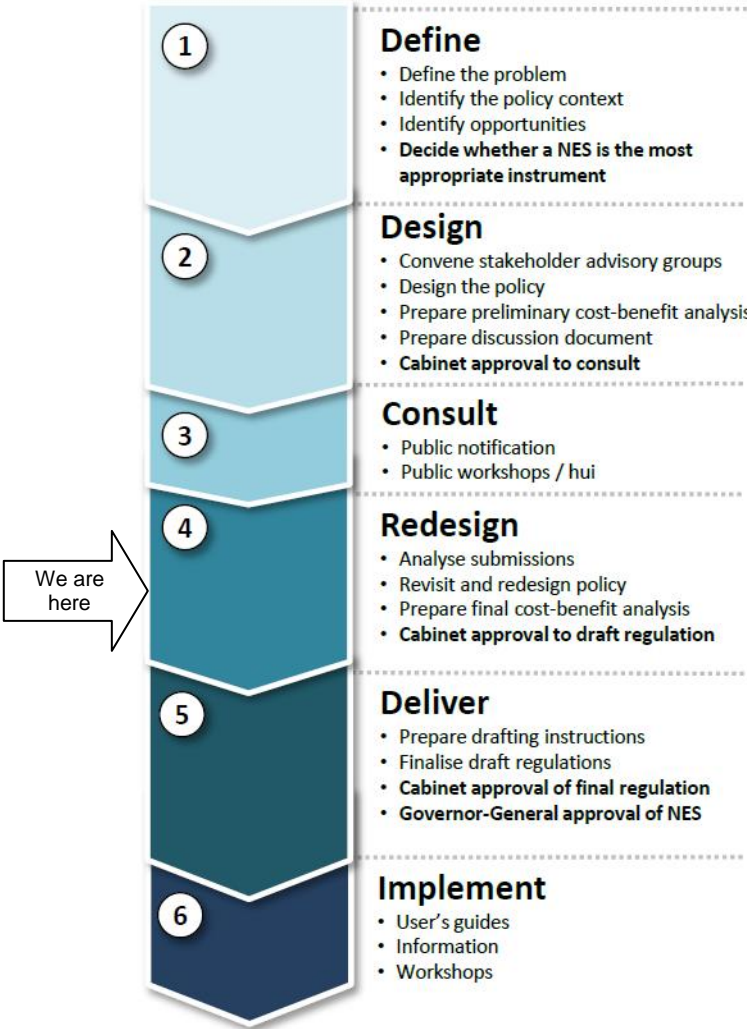
- *Report of the outcome evaluation of the National Environmental Standards for Telecommunication Facilities*
- *Proposed amendments to the National Environmental Standards for Telecommunication Facilities: Preliminary evaluation under section 32 of the Resource Management Act 1991*
- *Report on Environmental effects of implementing ultra-fast broadband and mobile infrastructure.*

The deadline for public submissions was 5:00 pm, Friday 17 April 2015.

## 1.2 National environmental standard amendment process

An outline of the development and amendment process for national environmental standards (NESSs) is shown in figure 1. The Ministries have completed the public process stage, and the release of this Report on Submissions marks the end of the submissions stage.

Figure 1: NES development/amendment process



\* Text in **bold** describes key decision points

Note that the NES development and amendment process differs from the district and regional plan and resource consent processes undertaken in accordance with the First Schedule of the Resource Management Act 1991. The development of an NES does not involve hearings and there are no rights of appeal.

### 1.3 Purpose

This report presents an overview of the submissions received on the proposed amendments to the NESTF.

- Chapter 2 is a summary of the key themes raised by submitters.
- Chapter 3 summarises general comments made by submitters.
- Chapter 4 summarises feedback from submitters on specific proposals, and corresponds to sections 2.1 to 3.2 of the discussion document.

This report is intended to provide a concise summary of the views expressed. It is not intended to fulfil the statutory requirement as a report and recommendation to the Minister for the Environment on the comments received during consultation, and does not provide an analysis of views contained in submissions.

A report and recommendations on final proposals taking into account submissions will be presented to Ministers and Cabinet and published on the Ministry for the Environment's website later in 2015.

## 2 Overview of submissions

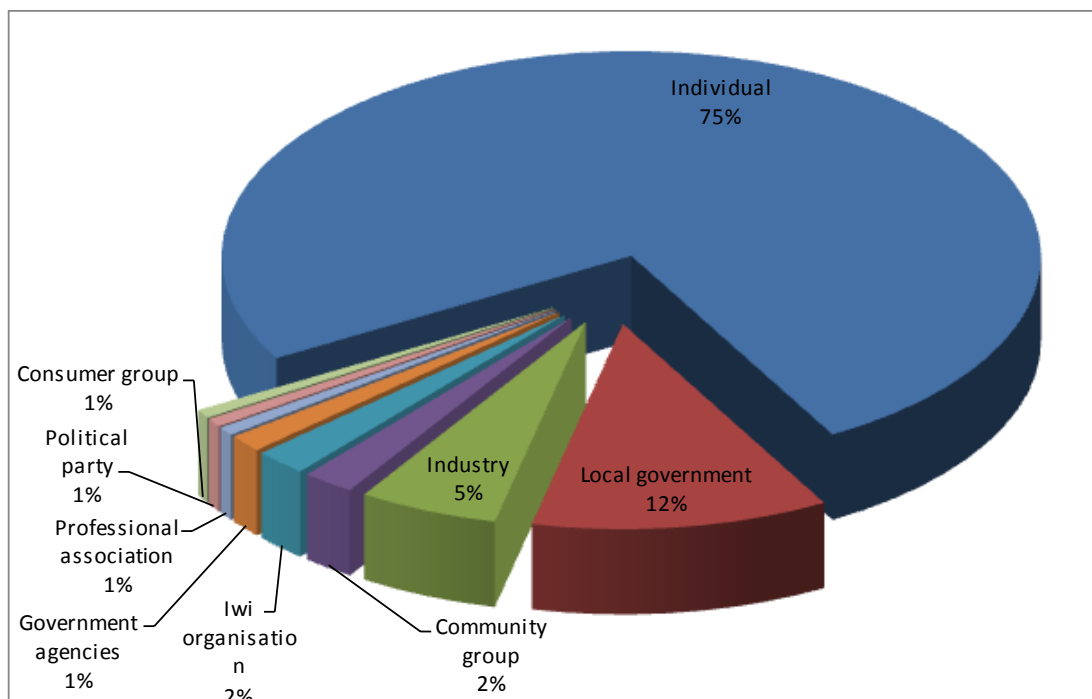
### 2.1 Summary of submitters' positions

A total of 145 submissions were received. Table 1 and figure 2 present a summary of submissions by source category.

**Table 1: Breakdown of submissions, by source**

Category	Number of submissions
Individual	109 (75%)
Local government	17 (12%)
Industry	8 (5%)
Community group	3
Iwi organisation	3
Government agencies	2
Professional association	1
Political party	1
Consumer group	1
<b>Total</b>	<b>145</b>

**Figure 2: Breakdown of submissions, by source**





## 2.2 Key themes analysis

The key themes analysis has been compiled from all submissions and is broken into three parts.

- The position of submitters is outlined in section 2.2.1.
- Key themes are summarised in section 2.2.2
- Comments on specific proposals (as set out in sections 2.1 to 3.2 of the discussion document) are summarised in section 2.2.3.

Where specific submitters' comments are quoted in this report, their statements are paraphrased unless otherwise indicated.

### 2.2.1 Position of submitters

To best reflect the tenor of submissions they are grouped into six categories: opposed, opposed in part, supported, conditionally supported, supported in part, and not stated. Due to the nature of many of the submissions, some interpretation was necessary in applying these categories. However, submissions that did not clearly state their positions were only attributed a position where this was obvious from the submission's content and tone.

In particular, it should be noted that conditional support is highly variable, from being conditional on relatively minor matters to relying on very substantive matters. To accurately reflect the level of support for the NESTF amendments as proposed, submissions that sought changes diametrically opposed to the direction of the proposals have been identified as being in opposition even if the submitter did not themselves refer to either support or opposition.

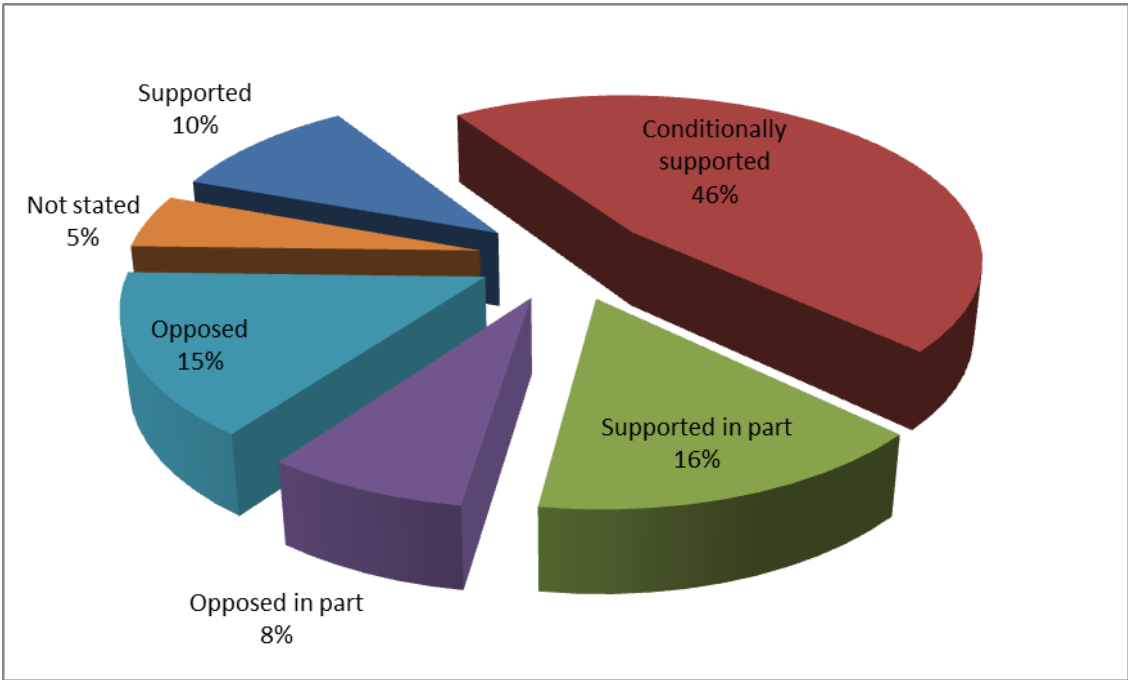
Identification of a submission as being in support does not necessarily mean the submitter did not offer suggestions for improvement, only that the tone of the submission did not suggest that the support was contingent on those suggestions being taken up by the final NESTF.

Where the position of a submission was not obvious, submissions were categorised as not stated.

Figure 3 represents the overall position of submitters. One hundred and six of the 145 submissions received commented only on the radiofrequency exposure standard set in the NESTF (NZS2772.1:1999). A review of the radiofrequency exposure standard was not within the scope of the proposals in the discussion document, as the standard was confirmed as still being relevant in the 2013 review of the NESTF. As such, these submissions were considered as being on topics that were out of scope (explained further in Chapter 4 (section 4.6.1).

Therefore, figure 3 represents the overall position of all submitters whose submissions were within the scope of the current proposals (a total of 39).

**Figure 3: Breakdown of submissions, by position**



Some care needs to be taken in interpreting these summary findings. Clearly the difference between supported in part and opposed in part is open to some debate, but the distinction is intended to reflect the emphasis of the submission. Broadly speaking, the majority of submitters supported the proposed amendments to the NESTF at least in part. A large proportion of submitters supported the proposed amendments provided that some changes were made to one or more of the individual proposals (conditionally supported).

**2.2.2 Key themes**

The key themes identified during the analysis of submissions are presented in table 2. For more detail on these themes, see Chapter 3.

**Table 2: Key themes: Overall**

<i>Key theme</i>
Support for general intent of proposal
Visual effects – getting the balance right between growing technology and visual effects
Protecting culturally significant sites
Earthworks
Who the NESTF applies to

## 2.2.3 Key themes, sections 2.1–3.2

Key themes derived from specific comments on the proposed amendments to the NESTF (comments corresponding to sections 2.1 to 3.2 of the discussion document) are summarised in table 3.

For more detail on these themes, see Chapter 4.

**Table 3: Key theme: per proposal**

<i>Section in discussion document</i>	<i>Topic</i>	<i>Themes</i>
2.1	Telecommunications cables	Consistency with move towards undergrounding of cables Total number of cables that may be added aerially Ancillary equipment conditions
2.2	Mobile networks	Concern about size limits Colour Concern about potential clustering Responsibility for original structures Ancillary equipment conditions
2.3	Special requirements for certain areas	Addition/removal of natural hazard zones Protection of ecological areas Protection of culturally significant areas Suggestions for other special areas
3.1	Radiofrequency measurement standard update	Health effects and review of NZS2772.1:1999 Changing the reporting threshold
3.2	Conditions controlling cabinets	Redefine 'site' Reduce timeframe for replacement cabinets Account for cabinets required for new networks

## 3 General submission summary

This chapter summarises general comments by submitters on the proposed amendments to the NESTF. This chapter describes issues that were raised by submitters that were common across all proposals. As such, while Chapter 4 provides more detail on the comments made for individual proposals it does not repeat the comments described in this chapter.

### 3.1 Support for general intent of proposal

As indicated by figure 3, there was general support of the proposed amendments to the NESTF. The majority of local government, iwi and industry submissions stated support for the general purpose and direction of the proposed amendments. They acknowledged the need to make amendments to the existing NESTF to take into account the development of telecommunications technology, and recognised the importance of telecommunications networks.

However, many of those submitters also stated the importance of striking a balance between consistency and recognising local conditions. As national environmental standards prevail over district plan rules, the right balance must be struck between providing for telecommunications infrastructure and the potential environmental effects.

Many submissions made suggestions for improvements to the proposed amendments, which are discussed in detail for each proposal in Chapter 4.

### 3.2 Visual effects

The most frequent concern raised about each of the proposals was the potential adverse visual effects that the infrastructure would have. This was a concern raised by all types of submitters including local government, iwi organisations, community groups, and individuals. The individual comments related to each proposal are explained in more detail in Chapter 4.

Examples submitters gave of adverse visual effects that could result from the size of the infrastructure included the visual impact of ancillary equipment required for the infrastructure (particularly solar panels and coils for cables), and a general increase in infrastructure causing clutter and reducing visual amenity. These effects were commonly highlighted as costs and risks for the proposals.

There was also concern raised that protection of visual amenity in special areas that were not identified as such in the district plan would not be possible. Individuals highlighted the example of Golden Bay in the South Island as a special area not yet identified in the District Plan as an area of special visual amenity.

A common suggestion for mitigating visual impacts was to use setbacks from more sensitive areas such as residential areas, dwellings, reserves, conservation areas etc. There were also suggestions that the NESTF could encourage the use of small infrastructure and undergrounding of infrastructure where it was possible.

Some general points about visual amenity included the following.

- Wellington City Council stated that there should be a balance between visual impacts and greater coverage.
- Porirua City Council stated that councils would have no ability to deal with negative visual amenity effects where they are greater than minor.
- Christchurch City Council stated that many of the complaints it receives in relation to these facilities either relate to visual impact (mainly in relation to the close proximity to residential properties).
- Christchurch City Council stated that the community has to trade-off between cheaper and more accessible telecommunications services and visual amenity costs.
- Te Runanganui o Ngati Porou stated that tourism is a pillar of the East Coast community and visual amenity is a key part of maintaining that.

### 3.4 Protecting culturally significant sites

Protecting culturally significant sites was also an issue that was raised by both local government and iwi organisations across many of the specific proposals. The three iwi organisations that commented on the proposed amendments made similar statements about this issue.

- Rangitane O Tamaki Nui a Rua Inc. stated that a large number of sites of significance remain unnamed and unmarked, leaving them exposed to disturbance. They stated that to protect these sites from projects, consultation plays a major role in iwi being able to identify sites of significance and ensure protection is put in place. They stated that they would encourage consultation with iwi in regards to any earthworks and the placement of new masts and antennas.
- Ngati Kahungunu stated that existing district plans have a limited collection of listed wāhi tapu within the Ngati Kahungunu rohe. They suggested a cultural impact assessment be done in conjunction with Ngati Kahungunu. They stated further that local authorities are not necessarily well placed to act in the best interests of wāhi taonga.
- Te Runanganui o Ngati Porou stated that they should be consulted about all intended activities in their rohe, to ensure wāhi tapu are protected. There is a risk to wāhi tapu if particular activities are classed as permitted, even if not on private Māori land (eg, on a road reserve), without additional examination.

Comments on this issue from local government included the following.

- Auckland Council stated that the NESTF should be subject to any district plan rules that protect the relationship of iwi and hapū with their resources.
- Thames Coromandel District Council and Christchurch City Council stated that district plans should apply in sites of significance to Māori as well as those already protected.
- Far North District Council stated that the NESTF needs to give consideration to iwi/Māori values and sites of significance.
- Christchurch City Council stated that silent files held by councils of sites important to tangata whenua should be used for protection of those sites.

## 3.5 Earthworks

The discussion document proposed to permit necessary earthworks associated with the deployment of telecommunications infrastructure in the proposed amendments to the NESTF.

Industry submitters wanted to ensure that all earthworks necessary for the deployment of telecommunications infrastructure in the proposed amendments to the NESTF would be permitted.

However, permitting earthworks generally was a cause of concern for local government and iwi submitters. Half of local government submissions mentioned needing further control around earthworks. Earthworks was a particular issue for the installation of underground cabling and for deploying infrastructure in rural areas.

Comments from local government submitters included the following themes.

- The surface should be made good following earthworks.
- Standards should be set around earthwork management (such as erosion, sediment control, adverse environmental effects).
- Uncontrolled earthworks could cause problems.
- Earthworks should be subject to land disturbance provisions in the plan.

Local government also raised their concern that earthworks permitted under the NESTF would set a permitted baseline for other activities.

Iwi organisations also made similar comments with regard to ensuring earthworks are appropriately managed, and also encouraging consultation with iwi around earthworks to manage the environmental effects and ensure wāhi tapu are protected.

## 3.6 Who the NESTF applies to

A number of submitters raised the question of who the NESTF should apply to, all coming from different angles. From the electricity sector, Metrix suggested that the NESTF should apply to more parties than telecommunications network operators. Metrix stated that installation of other equipment such as smart meters creates the same issues with applying for resource consents and the inconsistencies found across district plans. Likewise, the Electricity Engineers' Association and Electricity Networks Association suggested that the proposed cabling provisions would be relevant to the electricity industry and this should be considered either in the NESTF or in a separate national environmental standard.

On the other hand, Powerco, as a network operator from the electricity sector, stated that the current scope for NESTF application is too wide. Often network operators go through the process of becoming a network operator under the Telecommunications Act primarily to secure the rights to place infrastructure in the road reserve, as provided for in the NESTF. Antennas used for electricity distribution do not fit within the size envelope for permitted antennas in the NESTF, but they are still required to produce a report to show compliance with the radiofrequency standards. In this respect Powerco considers that the NESTF creates an overall cost to them.

### 3.7 Overview of submitter comments by submitter type

In general, the comments of submitters align closely to particular submitter types. The following gives an overall impression of submitters' views.

- a. *Local government* submitters tended to support the proposals in part or with conditions. Most local authorities agree with the reasons for the proposed amendments but express concern about the inability of the proposed NES to recognise and protect the full range of amenity values that could be compromised by telecommunications facilities. These submitters generally seek a more detailed and more restrictive set of provisions in the NES.
- b. *Iwi organisation submitters* tended to agree with the direction of the amendments and the proposals, provided that they do not have adverse environmental or cultural effects.
- c. *Industry* submitters tend to fall into two sub-groups. The first sub-group, consisting of telecommunications operators tend to support the proposed amendments, although suggestions for improvement are made (involving less restrictive standards). The second sub-group, consisting of electricity network operators also broadly supports the proposed NES, but expresses views about who the NESTF applies to, and some safety aspects.
- d. *Individual and community group, and the political party* submitters exclusively opposed the proposed NES on the grounds of perceived health risks, concern about impacts on visual amenity values and other community values or rights such as participation in the planning for placement of telecommunications infrastructure.
- e. *Government agencies* were generally supportive of the proposals and made some comments about their particular area of responsibility.
- f. The two *professional associations* were broadly supportive of the proposals, and made largely technical suggestions for how the proposal can be improved.
- g. The *consumer group* (Telecommunications Users Association of New Zealand) was supportive of the proposed amendments.

## 4 Submissions on specific proposals

This chapter collates feedback from submitters who commented on specific parts of the proposed amendments to the NESTF.

For ease of reference, the following headings refer to sections as they appear in the original discussion document.

<i>Section in discussion document</i>	<i>Topic</i>
2.1	Telecommunications cables
2.2	Mobile networks
2.3	Special requirements for certain areas
3.1	Radiofrequency measurement standard update
3.2	Conditions controlling cabinets

### 4.1 Section 2.1: Telecommunications cables

The deployment of telecommunications cables is not within the scope of the current NESTF.

The discussion document proposed that telecommunications cables deployed aerially in areas where aerial cabling already exists be a permitted activity provided they meet restrictions on diameter. It also proposed that associated ancillary equipment, and activities required for ongoing operation and maintenance are permitted activities.

The discussion document proposed that telecommunications cables deployed underground be a permitted activity. This also proposed that associated ancillary equipment and earthworks required for deployment are permitted activities.

The majority of submitters who commented on the telecommunications cables proposals (18 out of 23 who commented) indicated that they supported or partly supported these proposals. Most submitters who commented suggested minor changes to amend the proposals.

Seven local government submissions highlighted that district plans are generally moving towards having infrastructure located underground where possible. The reasons for this include reducing the visual impact and management of hazard risks such as infrastructure collapsing in an earthquake. Permitting aerial cabling where aerial cabling already exists would be inconsistent with that move and extend the life of aerial networks. While recognising that aerial cabling will be more cost effective in some areas, some suggested that underground cabling should still be encouraged.

To manage the visual impact, three local government submissions wanted a limit on the number of cables that could be added in one area to be clarified, and two suggested that conditions around hiding ancillary equipment such as coils should be in place.



Two industry submissions suggested that cabling activities could be excluded from the proposal that natural hazard areas be managed by the district plan because of the extent of these overlays. One further suggested that they could also be removed from the historic heritage protection provisions. Alternatively, Hauraki District Council suggested that underground cabling should continue to be managed in conservation areas and significant natural areas.

Two submissions from the electricity industry also highlighted the risks around Earth Potential Rise (an issue that could affect safety) and the importance of having conditions that managed this risk appropriately.

## 4.2 Section 2.2: Mobile networks

### 4.2.1 Multi-storey buildings

Placement of antennas on multi-storey buildings is not within the scope of the current NESTF.

The discussion document proposed that antenna placed on the roof or side of a building no less than 15m tall is a permitted activity provided that certain size limits are met. It also proposed that associated ancillary equipment necessary for the operation of the antenna is a permitted activity.

The majority of submitters who commented on the antennas on multi-storey buildings proposals (14 out of 18) indicated that they supported or partly supported these proposals. Most submitters who commented suggested minor changes to improve the proposals.

Most of the suggestions made to improve the proposals were to reduce the overall visual impact of the facilities. For example, local government suggestions included options such as a separation from the boundary of the roof, requiring the antenna to be the same colour as the building or a neutral colour, and requiring cabinets to be located on the roof or within the footprint of the building. Three local government submissions raised concern about the visual impact on neighbouring properties that looked across or down onto rooftops. There was also concern that the height allowance may be too high close to airfields.

Hastings District Council and Te Runanganui o Ngati Porou raised the concern that in their districts there were few buildings that would meet the 15m high threshold proposed. They were concerned that this could result in cluttering on the few buildings that met the threshold. One individual requested that no antennas be located in residential areas or near education facilities.

Industry submissions suggested slightly more lenient provisions than those proposed. Three industry submissions suggested that the height restriction should be lowered or removed for industrial and commercial areas, and buildings not used for residential purposes but located in residential areas. One industry submitter suggested that cabinets located within buildings should have no size restrictions.

## 4.2.2 Rural areas

Placements of antennas outside the road reserve in rural areas is not within the scope of the current NESTF.

The proposal is to permit masts, antennas, and any necessary ancillary equipment in rural areas provided they meet certain size limits and distance from residential zones and dwellings. The proposal also sets conditions around earthworks and vegetation to mitigate the effects on the environment.

Of the 20 submitters who commented on the antennas in rural areas proposals, 12 indicated that they supported or partly supported these proposals and eight did not support the proposals. The comments and suggested amendments to the proposals varied widely for the rural areas proposals, although were still mostly directed at mitigating the visual impact.

The most common aspect of the rural proposals that was commented on was the size of the infrastructure, with six submitters mentioning this. For example, one local government submitter suggested that a structure of the proposed size could not be absorbed into all environments, and two local government submissions querying whether a 6m diameter was actually required. Similarly there was concern that a 30m mast would be permitted if co-location occurred on top of a rural mast of 25m. Ensuring the colour of the infrastructure was adequate for the environment was also suggested by three local government submitters to mitigate visual effects.

Another common theme in this area was the use of separation distances. Three councils and a community group submitter wanted to ensure there would be set separation distances from dwellings and special features, with the community group wanting it increased to 200-300m. Three local government submitters also wanted to ensure that aged care homes and schools would be included under dwelling or sensitive land use area. In relation to this, two individuals and a community group raised the concern that property values would decrease if a rural mast and antenna was located too close to the property.

Three local government submissions suggested that there needed to be more stringent conditions around protecting vegetation, for example one stated that vegetation identified as significant indigenous vegetation should be excluded from being cleared. On the other hand the Telecommunications Forum suggested that only scheduled trees should be protected. Two local government submissions also suggested that there needed to be additional protection for sites of significance to Māori.

Local government and industry submitters also wanted to ensure terms such as 'rural area' and 'practicable vicinity' were defined.

As mentioned, there were a variety of comments on this area. Comments made included the following.

- Placement of new masts should be subject to community approval (individual).
- Clarification around what overlays would be protected, for example Wellington City Council's ridgelines and hilltops overlay (Wellington City Council).
- The proposed rules would be more stringent than the current district plan, but this is considered a good thing (Hastings District Council).

- One individual stated that the NESTF should ensure these structures do not affect tourism and New Zealand's image.
- Wellington City Council stated that councils have not necessarily yet identified special areas in the district plan.
- The Electricity Engineers' Association and Electricity Networks Association stated that the NESTF should ensure that any other affected utility operators are contacted as soon as possible about plans.

### 4.2.3 Masts in the road reserve

Placement of new masts to support antennas in the road reserve is not within the scope of the current NESTF. The proposal is to permit new masts in the road reserve to support antennas provided that the masts meets requirements to ensure it is in keeping with existing masts within the vicinity of the proposed new mast.

Placement of a replacement utility structure outside of the location of the original utility structure is not permitted by the current NESTF. The proposal is to permit the movement of a replacement utility structure within a 3m radius of the location of the original utility structure provided the structure is still located on the road reserve.

Of the 21 submitters who commented on the masts in the road reserve proposals, 14 indicated that they supported or partly supported these proposals and seven did not support the proposals. This categorisation includes both proposals for masts (new masts and movement of replacement masts) and does not differentiate between the two. Most submitters who commented suggested minor changes to the proposals.

Most of the comments received on this section were about the proposal to permit new masts in the road reserves, and issues raised were wide ranging. The most common issue which was raised by one iwi organisation and five local government submitters was that there should be a limit on the number of new masts to prevent accumulation of masts. Two local government submissions also stated that the use of existing structures should be required/encouraged where possible.

Issues around separation distances were also raised. Two local government submitters suggested a separation distance from a residential boundary for new masts, and two others suggested that the NESTF needed to state the minimum proximity between two masts. Two local government submissions also raised the difficulties of administering the provision for new masts because they do not hold information about the sizes of current masts in the road reserve.

A telecommunications network operator fully supported these proposals as they would allow for their planned rollouts and also provide clarity over the existing NESTF. The Telecommunications Forum wanted to clarify the location of existing structures to be used as the benchmark for the dimensions of a new mast and to be allowed an additional 5m height above zone height to ensure customers could be reached. They also suggested adding conditions to manage scheduled trees and permit and manage earthworks.

Two individual submitters stated that the placement of new masts with antennas should be consulted with the community. Another individual was concerned that new masts on the road reserve in rural areas would affect the visual amenity and affect property values.

Regarding the proposal to allow a replacement mast to be moved within 3m of the original location, two local government and one industry submitter supported this proposal, on the other hand one local government and one industry submitter suggested that 3m may not be sufficient and suggested 5m. An iwi organisation suggested that an assessment of feasibility would need to be carried out when considering moving a mast.

Chorus also suggested that district plan rules around natural hazard zones should not apply to replacement masts because there are existing requirements in these areas and that this could negate the benefit of the proposal.

#### 4.2.4 Size of antenna

The size of antenna currently permitted under the NESTF is 2 metres high and 0.5 metres diameter. The proposal is to increase this size limit to permit antenna that are 3.5m high and 0.7m in diameter. The proposal permits the installation of new antenna and the replacement of existing antenna both within and outside the road reserve, provided that they meet those specified size limits. The proposal also permits an increase in the size of the mast or replacement utility structure within certain specifications to ensure it can support a larger antenna, and an additional cabinet if required.

There is also a proposal to permit additional antennas at existing sites provided that the total height and width of the infrastructure meet certain size requirements. The proposal also permits an additional cabinet if this is required for the additional antenna. This activity is not proposed to be permitted in residential areas.

The majority of submitters who commented on the size of antenna proposals indicated that they supported or partly supported these proposals (15 out of 19). This categorisation includes all proposals in this category (new, replacement and additional antenna) and does not differentiate between the three. Most submitters who commented suggested minor changes to the proposals.

Many of the comments around these proposals were about reducing the visual impact of the infrastructure, and three local government submissions mentioned this concern specifically. Te Runanganui o Ngati Porou also suggested that there should be further restriction to control visual amenity.

The most common comment raised by four local government submissions was that the NESTF should ensure the antenna provisions would only apply once per antenna to ensure they did not continue to increase with multiple upgrades. Three local government submitters also suggested that the NESTF should state a maximum size envelope rather than percentage increases, partly to prevent this continuous increase and partly for ease of implementation.

Suggestions to reduce the visual impact were varied, and included the following.

- Two local government submitters stated that the NESTF should ensure the shroud is included in the size envelope. However, they also stated that a shroud is not always the most visually appropriate option.

- Local Government New Zealand stated that the NESTF should incentivise small infrastructure where possible.
- Auckland Council suggested having a separation distance from residential boundaries.
- Two local government submitters and one individual submitter questioned whether a 100 per cent increase in a headframe (for additional antennas) or replacement utility structure is necessary.
- Christchurch City Council stated that no headframes should be permitted in the road reserve.
- Porirua City Council stated that replacement of antennas proposal should only be permitted on road reserves.
- Porirua City Council stated that the NESTF should include guidelines around what is included in ancillary equipment.

Two local government submissions raised concerns about upgrades of existing sites being permitted for sites that were originally established under resource consent. They stated that the process would have often resulted in agreement with the community which would be overridden by these proposals.

The Telecommunications Forum suggested that the proposed activities (larger, replacement and additional antenna) not be permitted in residential areas. On the other hand another industry submitter, Powerco, asked that additional antennas be permitted in residential areas. Powerco also requested that the size envelope for antennas provides for antennas they commonly use, but which are of a different shape to that permitted through the NESTF. The Telecommunications Forum suggested including face dimensions which would be more appropriate measurements for panel antenna, and that permitted height increases all needed to be 3.5m. Industry also wanted to clarify that upgrades and additional antennas would not be limited to only antennas operating on new spectrum bands but also to upgrade services generally.

The Electricity Engineers' Association and Electricity Networks Association suggested that the impact on structural loading should be covered in respect of pole strength and pole ground setting.

#### 4.2.5 Co-location

Co-location of telecommunications equipment is not specifically addressed by the current NESTF.

The proposal is to allow an additional 5m of height onto an existing antenna in order that a second network operator can place an antenna on the same site. The proposal is also to permit an additional cabinet. This activity is not proposed to be permitted in residential areas.

The majority of submitters who commented on the co-location proposals indicated that they supported or partly supported these proposals (14 out of 17). Hamilton City Council staff and a telecommunications network operator supported the proposal without changes. Most submitters who commented suggested minor changes to the proposals.

Two local government submitters were concerned that an extra 5m in height would have significant visual impacts, and another local government submitter was concerned that this

proposal ignores the effects of the infrastructure and also the conditions agreed on through the resource consent process. As with the rural antenna proposals, the Far North District Council also raised the concern that this would allow 30m masts in rural areas, which is not permitted by district plans currently. In a similar way, two local government submissions wanted to clarify that this proposal could not occur in addition to the replacement and additional antenna at existing sites proposals creating larger cumulative effects.

Three local government submissions stated that co-location was not always the best option, and sometimes an additional antenna worked better. They therefore wanted the flexibility to choose where co-location was appropriate. Te Runanganui o Ngati Porou suggested that there should be further restriction to control visual amenity.

There were also comments raised about the areas where co-location could occur. The proposal stated that co-location would be permitted in areas not zoned residential.

Suggestions for amendments included the following.

- Porirua City Council stated that co-location should be limited to central business districts, rural and industrial areas.
- Powerco stated that the proposal for co-location should include residential zones for the most efficient use of existing infrastructure.
- Two local government submitters stated that the co-location proposal should include a reference and restriction around sensitive land uses as with the rural proposal.
- Christchurch City Council stated that their Plan zones the road reserve separately from residential, so co-location would still be permitted in the road reserve in residential areas in Christchurch.
- Christchurch City Council stated that the proposal should include reference to other sensitive areas such as reserves.
- A community group stated that new telecommunication structures in rural zones should have the structural and technical capacity for co-location for at least two other operators. They suggested that the co-location agreement requirements in the Rural Broadband Initiative could be used to refine this. The group stated that if a co-location tower is available, it should first be utilised before any new utilities are built.

The Electricity Engineers' Association and Electricity Networks Association suggested that the impact on structural loading should be covered in respect of pole strength and pole ground setting.

#### **4.2.6 Small cell units**

The installation of small cell units is not within the scope of the current NESTF.

The proposal is to permit the installation of small cell units both within and outside the road reserve provided that the unit and any ancillary equipment are within a specified size limit.

The majority of submitters who commented on the small cell unit proposal indicated that they supported or partly supported the proposals (11 out of 12). The individual submitter did not provide any further comment on these proposals.

The majority of comments for these proposals were focussed on what infrastructure would be included within a small cell unit. Wellington City Council stated that maximum dimensions were needed, and raised the concern that sometimes solar panels can cause a greater visual impact than the other infrastructure because of their reflective ability. Auckland Council wanted to clarify that cabling was included within the permitted volume dimensions, whereas the Telecommunications Forum requested that ancillary equipment be excluded from the volume dimensions. The Telecommunications Forum also requested that there be standards to permit and manage associated earthworks. One individual stated that allowances for power supply should be considered.

Hamilton City Council staff wanted to ensure that consent for placement on private property would need to be obtained from the owners as this has caused issues in the past. Te Runanganui o Ngati Porou wanted there to be a limit on how many small cell units could be installed in any one area.

The Telecommunications Forum highlighted that small cell units would allow increased coverage without installing large new infrastructure. However, one individual submitter raised a concern that the public would be unaware of these small installations and that there was no knowledge on whether they would have a greater or lesser health impact (from radiofrequency emissions).

## 4.3 Section 2.3: Requirements for certain areas

The current NESTF states broadly that areas identified in the district plan as coastal marine, visual amenity or historic heritage areas, or areas identified as being in the drip line of a tree or other vegetation should be managed by the district plan where the district plan is more stringent than the NESTF.

The proposal is to ensure that these provisions also apply to telecommunications facilities permitted by the proposed additions to the NESTF both within and outside the road reserve.

The proposal is also to add natural hazard areas to this list of areas that will continue to be managed by the district plan where the district plan is more stringent than the NESTF.

The majority of submitters who commented on the size of antenna proposals indicated they supported or partly supported these proposals (19 out of 22). Most submitters who commented suggested minor changes to the proposals.

The majority of the comments on these proposals related to the proposal to add natural hazard areas into the regulation 6 so that they continue to be managed by district plans. There were mixed views on this proposal, and the comments included the following.

- Three local government submitters stated that the NESTF should look at natural hazards from the safety and protection of property and people as well as the infrastructure. They noted that for example aerial networks could pose a hazard during earthquakes.

- Chorus stated that cabling and pole replacement should be excluded from the natural hazard provision, as the extent of natural hazard areas has the potential to negate the benefits of the proposal.
- The Telecommunications Forum stated that there are already requirements that ensure natural hazard management such as the Utilities Access Code in the road reserve, and the Building Act.
- The Telecommunications Forum stated that areas identified by local government as natural hazard zones are generally expanding.
- Two local government submitters stated that natural hazard zones are always changing and evolving.

Two local government submitters stated their support of retaining district plan management of particular activities because it allows councils to address these activities accordingly. Hastings District Council mentioned an example of a previous application in an area with outstanding natural features and appreciated being able to manage that.

Industry submissions raised concerns about the lack of a definition of historic heritage and visual amenity in the current regulation 6 of the NESTF. They suggested that these areas should be more limited in their application to areas such as specific heritage listed buildings and landscapes identified as part of a landscape study, rather than broader categories sometimes used by councils.

Local Government New Zealand suggested that vegetation clearance should be addressed, ie, the vegetation disturbed should not be scheduled or otherwise protected.

As asked for in the discussion document, submissions also provided other areas which may be more suited to management by the district plan than the NESTF. These included:

- 'white zones' - areas of low to no radiofrequency emissions, where sufferers of Electro-hypersensitivity Disorder (EHD) can live without adverse effects
- areas with other hazards that are not natural hazards
- other sensitive zones such as reserves, conservation zones
- airfields.

The discussion document also asked if district plans were likely to have the relevant overlays available if the proposals proceeded to regulation. One individual and three local government submitters stated that not all plans would have these in place. However, Thames-Coromandel District Council suggested that the onus should be on councils to ensure these overlays are available.

Two individual submitters stated that resource needed to be put into identifying special landscapes to ensure they are protected. They gave the specific example of the Tasman area and not yet having outstanding natural landscape features identified in the District Plan. A community group suggested that telecommunications infrastructure should only be permitted where a) the site is not a scheduled site or area subject to any special rules, and b) the site is not in a district yet to identify its outstanding natural landscapes and features in its district plan.



## 4.4 Section 3.1: Radiofrequency measurement standard update

The current NESTF incorporates by reference the New Zealand Standard 6609.2:1990 Radiofrequency Radiation – Principles and Methods of Measurement – 300 kHz to 100 GHz.

The proposal is to update this reference with a reference to the more recent AS/NZS 2772.2:2011 Radiofrequency Fields Part 2: Principles and Methods of Measurement and Computation – 3 kHz to 300 GHz.

The majority of submissions that commented on the radiofrequency measurement standard indicated that they supported or partly supported the proposal (nine out of 12).

There were few comments received on this proposal. The Telecommunications Forum requested that along with the update, the threshold for reporting requirements should also be changed. It stated that threshold should be changed because the new measurement standard provides a more rigorous framework for dealing with uncertainty, and the current threshold for producing a report confirming predicted levels is set at an unnecessarily conservative level. Powerco also requested that low powered sites be excluded from the reporting requirements as they increase costs for the industry with no gain.

Wellington City Council suggested that the phrase “any subsequent amendment” be added to account for any future updates to the standard. Auckland Council confirmed that the new measurement standard represents current best practice.

As mentioned earlier, a large majority of submissions commented on the potential health effects of radiofrequency fields and requested a review of the radiofrequency exposure standard NZS2772.1:1999. A review of this standard was not within the scope of the proposed amendments.

In addition to this, the main comments relating to the health effects included the following:

- Need for a review of NZS2772.1:1999.
- The industry should be required to use lower radiofrequency emitting equipment or choose lower exposure areas for siting.
- The potential for adverse health effects is too big a price to pay for increased telecommunications availability.
- Communities should be involved in the decisions that impact them.

## 4.5 Section 3.2: Conditions controlling cabinets

The current NESTF sets standards for the size and location of cabinets housing telecommunications infrastructure in the road reserve. The current NESTF uses the term 'site' when referring to cabinets. The proposal is to define this term as 'an area where cabinets are located'.

There is also a proposal to allow for the replacement of cabinets by permitting two cabinets to be located close to each other provided that the first cabinet is removed within 12 months of installation of the replacement cabinet.

The current NESTF allows two or more cabinets to be located within the same site provided that their total footprint does not exceed 1.8m<sup>2</sup>. The proposal is to increase this total footprint to 2m<sup>2</sup>.

The majority of submitters that commented on the proposals relating to cabinets indicated that they supported or partly supported the proposals (15 out of 18). These figures combine all proposals related to cabinets. The majority of people who commented made suggestions.

The most common request, made by five local government submitters and one iwi submission was that the timeframe for replacement cabinets be reduced from 12 months. Three months was suggested as more appropriate by most submitters, and one suggested six months. On the other hand, the Telecommunications Forum asked that the 12 month requirement be removed and the condition state that the original cabinet should be removed when the crossover to the new network is complete. The Telecommunications Forum clarified that replacement cabinets are required both for upgrade, and to transfer to new network services, the latter of which requires all customers to be connected to the new network before the original cabinet can be removed.

Other comments included the following.

- Wellington City Council wanted to ensure the removal of a cabinet would also require the removal of the plinth.
- Tasman District Council suggested that written confirmation of the removal of a cabinet be sent to the council to help with their monitoring.

On the proposed definition of 'site', two local government submissions suggested that this needed to be better defined and refer more to the immediate area where the cabinets are located. Porirua City Council suggested the need to limit the number of new cabinets allowed in an area.

The electricity industry raised concerns about cabinet placement. The Electricity Engineers' Association and Electricity Networks Association suggested that there be a minimum distance between cabinets and other utilities assets/cabinets as there is between sites for cabinets. Transpower requested that there be a requirement for telecommunications operators to consult with Transpower if installing cabinets near a National Grid substation for safety reasons.

Metrix asked for clarification around how equipment that integrates cabinets and antenna would be treated.

The New Zealand Police raised an issue with their shelters. As currently defined, shelters could potentially be caught by the definition of cabinet in the NESTF. Larger buildings such as

exchanges could also potentially fall into the same category. They suggest either further defining cabinet, or clarify when a cabinet becomes utility building in the Users' Guide, or allow for different sizes and circumstances to account for this.

## 4.6 Other matters

Below is a summary of further comments that submitters made, that were not directly related to an individual proposal.

Hauraki District Council Staff stated that the definition of road reserve – as set out in glossary of the discussion document, appears to have broadened significantly – to include any land to which the 'public have access'. This would appear to include parks, reserves, Department of Conservation land, esplanade reserves etc, which are unrelated to the general concept of what a road is. They questioned whether this was really the intention.

The Telecommunications Forum stated that they agreed with definition of 'road reserve' as included in discussion document. They suggested adding a provision permitting use, operation, maintenance, repair, and replacement of existing telecommunications network.

An individual submitter stated that the environmental report used in drawing up proposals used past council planning procedures/submissions as indicators of environmental effects, which is a poor indicator of true effects. They stated that most people in the public do not get involved in such processes as they are too complicated, mentally challenging, time intensive, and hard to keep up with. The submitter stated that people do not often form an opinion on something until confronted with it personally. They stated that the writing of policy is often slanted in the industry's favour, as they lobby and spend the money to make the changes, whereas the public for the most part are less vocal and do not have the financial means or time. The submitter suggested that a better indicator of potential effects is property values and media articles, which express public opinion.

Te Runanganui o Ngati Porou stated that they should be consulted on activities occurring within their rohe tipuna. They stated that this was extremely important for the ability to communicate with their people about when particular activities will be taking place. They stated that is important that the Ministry for the Environment and the Ministry of Business, Innovation and Employment ensure they are equally up to date with continuously evolving technology, and the environmental effects caused by the different nature of that technology.

Local Government New Zealand stated that road-testing the regulations would help uncover any unforeseen issues. They stated that the NESTF should clearly exclude areas within regional jurisdiction (coastal marine area and beds of lakes and rivers). They stated also that the NESTF should clarify its relationship to regional earthworks rules (sometimes work to identify special areas is done at a regional level and this will also need to be taken into account).

The Electricity Engineers' Association and Electricity Networks Association stated that future-proofing the NESTF would require further consideration of the relationship between electricity and telecommunications systems and assets, as the trend towards interactive, multi-flow smart grid technologies increase. Many issues relating to the need for the NESTF equally relate to deployment of electricity infrastructure assets. They stated that it would be beneficial to

coordinate work in the two areas. They noted that the final wording of NESTF will be very relevant to electricity network businesses; as many are network operators.

Transpower stated that they generally support the proposed amendments to the NESTF, but stated that the NESTF needs to further consider interface with designation framework. They stated that requiring authorities and councils may need to invest considerable time and money assessing whether NES provisions prevail over a pre-existing designation at the time of a district plan rollover, or if the designation is altered or an outline plan lodged. They suggested that the list of legislation telecommunications operators need to comply with in addition to the Resource Management Act 1991 and the Telecommunications Act 2001 should include the National Policy Statement on Electricity Transmission 2008, the National Environmental Standards for Electricity Transmission Activities 2009, and New Zealand Electrical Code of Practice for Electrical Safe Distances 2001. They stated that these proposed modifications would ensure activities managed under the NESTF appropriately avoid or mitigate adverse effects on the safe and efficient operation and development of the National Grid.

A community group stated that the 'balancing approach' in the NESTF (weighing adverse effects against benefits of greater network coverage) is contrary to the principles in the Resource Management Act, which specifies that positive effects cannot be a reason to allow unacceptable environmental damage. Any greater than minor adverse effects deserve the resource consent process. Resource consent is only way to avoid, remedy and mitigate effects.

#### **4.6.1 Perceived health effects**

The most dominant theme across all submissions is a concern about the potential health effects associated with radiofrequency fields, which is mentioned by 113 submitters. The majority of the submissions regarding the potential health effects were copies of a template submission provided by a website opposed to smart meters ([www.stopsmartmeters.org.nz](http://www.stopsmartmeters.org.nz)); however, some individuals did add further comments to support the submission. The template also lists documentation and references supporting the claim that the current exposure limit is not adequate.

The concern expressed in the submissions is that the current radiofrequency exposure limit set in the NESTF through the standard NZS2772.1:1999 (incorporated by reference into the NESTF) does not provide adequate health protection against all of the potential effects of radiofrequency field exposure. The submitters want the standard to be reviewed. Several submitters relate personal stories of health issues they attribute to radiofrequency fields.

The evaluation of the NESTF carried out in 2013 found that the radiofrequency exposure limit set in NZS2772.1:1999 is still appropriate to provide the required protection of human health, even when considering more recent research. There is no proposal to amend the standard incorporated by reference and a review of the standard itself is out of scope of amendments to the NESTF. As this issue is out of scope of the proposals, it is not discussed further in this summary of submissions.

# Appendix A: Public notice

The following public notice appeared in regional and national newspapers on 7 March 2015. Newspapers containing the public notice were: *Waikato Times*, *Dominion Post*, *Otago Daily Times*, *The Press Christchurch* and *New Zealand Herald*.



The banner features logos for the Ministry for the Environment (with the Māori name 'Manatū Mōi Te Taiao') and the Ministry of Business, Innovation & Employment. The text is as follows:

**Proposed Amendments to the National Environmental Standards for Telecommunication Facilities**

**Call for Submissions**

In accordance with section 44 of the Resource Management Act 1991 the Minister for the Environment and the Minister for Communications are inviting submissions on proposed amendments to the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008 (regulations).

The proposed amendments are to expand the regulations to provide national consistency for a wider range of telecommunications facilities while ensuring that deployment of these telecommunications facilities in areas of significance and natural hazard areas can be managed by the relevant district plan.

A discussion document outlining the proposed amendments and their rationale has been published by the Ministry for the Environment and Ministry of Business, Innovation and Employment. To view the discussion document and access the online submission form please visit [www.mfe.govt.nz](http://www.mfe.govt.nz). Any person may make a submission about this proposal.

If you have any questions about the proposals, or would like to email a submission, please email [standards@mfe.govt.nz](mailto:standards@mfe.govt.nz).

Submissions close at 5.00pm Friday 17 April 2015.

New Zealand Government

# Appendix B: Index of submitters

## Key to categories

LG	Local government
I	Individual
Iwi	Iwi organisation
Ind	Industry
GA	Government agency
C	Community group
Con	Consumer group
PP	Political party
PA	Professional association

No.	Name	Organisation	Category
1		Clutha District Council	LG
2	Marty Thomson	New Zealand Police	GA
3	Paul Elwell-Sutton		I
4	Sue Grey		I
5	Rosanna Donovan		I
6		Wellington City Council	LG
7		Invercargill City Council	LG
8	Dever Family		I
9	Linda Wiseman		I
10	Richard Condren		I
11	Anonymous		I
12	Anonymous		I
13	Geoffrey Booth		I
14	Ronald Ngata		I
15	Diana Hardwick Smith		I
16	Helmut Lutz		I
17	Anonymous		I
18	Maria Robins		I
19	Fleur Black		I
20	Les Ryan		I
21	Sandra Week		I
22	Willow Sharp		I
23	Nick Jackson		I
24	Mary Hobbs		I
25	Mary Ellen Wierschem		I
26	Moana Brown		I
27	Claire Williams		I
28	Anonymous		I
29	Anonymous		I
30	Caroll Macy		I
31	Elisabeth Alington		I
32	D Gravenites		I
33	Talia Mana		I
34	Linda Samways		I

No.	Name	Organisation	Category
35	Maria Biggelaar		I
36	Anonymous		I
37	Joe & Melva Harland		I
38	Lyll Kerr		I
39	Anni Stewart		I
40	Robyn		I
41	Victoria Harris		I
42	Sarah Harris		I
43	Ian Harris		I
44	Eileen Harris		I
45	Ciel		I
46	David Scott		I
47	Anonymous		I
48	Beth Martin		I
49	Isabel Hutchinson		I
50	Darlene Nicholls		I
51	Irina Schrubka		I
52	Elizabeth Marks		I
53	Meta Forsythe		I
54	Phillippa Martin		I
55	Anonymous		I
56	Philip Hurring		I
57	Lynn Stephenson Smith		I
58	Greg		I
59	Linda Light		I
60		Golden Bay Natural and Linked	C
61	Glenn McDowell		I
62	Philip Grey		I
63	Kenrick J Finlayson		I
64	Jason Marinovich		I
65	Geraldine Le Prou		I
66	Gay Hodgetts		I
67	Cowell Tomiko		I
68	Anne Gastinger		I
69	Anonymous		I
70	Melanie C		I
71	Wayne McCarthy		I
72	Pam Buckwell		I
73	Tony Cranston		I
74	Anonymous		I
75	K Sanders		I
76	Anonymous		I
77	Ana Lempriere		I
78	Marijan Keser		I
79	Rose Riley		I
80	Fleur Black		I
81		Metrix	Ind
82	Catherine Robinson		I
83	Anonymous		I
84		Hauraki District Council Staff	LG

No.	Name	Organisation	Category
85		Palmerston North City Council	LG
86	Anonymous		I
87	Simin Williams		I
88	M Gould		I
89	Heather Fausett		I
90	Pat McNair		I
91	Rashel Hall		I
92	Philip Kurta		I
93	Karen Degen		I
94		Rangitane O Tamaki Nui a Rua Inc.	Iwi
95		Ruapehu District Council	LG
96	Sarah Hornibrook		I
97	Lianne Mylie		I
98		Hamilton City Council Staff	LG
99		Otago Regional Council	LG
100		New Zealand Transport Agency	GA
101		Democrats for Social Credit	PP
102	Peter Archer		I
103	Rhiannon Mackintosh		I
104	Tom MacRae		I
105		Patients' Rights Advocacy Waikato inc.	C
106	Julia Barnes		I
107	Andrew Martin		I
108		Chorus	Ind
109		Porirua City Council	LG
110	Jacqueline Walker		I
111	Brendon Downs		I
112	Monica Henriques		I
113		Hastings District Council	LG
114		New Zealand Telecommunications Forum	Ind
115		Unison Networks Limited	Ind
116	Ron & Maureen Major		I
117		Powerco	Ind
118	Kristen Connable	Anahata Yoga Retreat	I
119	Sue Kingham		I
120	Dorothy Battersby		I
121	Eva Pick-Stone		I
122	Eric Blankenbyl		I
123		Vector Limited	Ind
124	Katherine Smith		I
125		Far North District Council	LG
126		Te Runganganui o Ngati Porou	Iwi
127		Team Talk Limited	Ind
128	J Courtenay		I
129	Zandra Wellington		I
130		Christchurch City Council	LG
131		Local Government New Zealand	LG
132	Grant Fausett		I



No.	Name	Organisation	Category
133	Ryanne O'Leary		I
134		Tasman District Council	LG
135	Veronica Christie		I
136		Electricity Engineers' Association and Electricity Networks Association	PA
137	Joy Gifford		I
138	Anonymous		I
139		Kerikeri Organic	C
140		Thames-Coromandel District Council	LG
141		Waitomo District Council	LG
142		Auckland Council	LG
143		Transpower	Ind
144		TUANZ	Con
154		Ngati Kahungunu	Iwi

# Appendix C: Proposals in the discussion document

**Table A1.1: Proposed new permitted activities (with associated standards)**

Permitted activities	
<b>Aerial cabling</b>	<p>Aerial placement of telecommunications cables by a telecommunications operator is permitted, including any necessary ancillary equipment, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• no additional poles are installed</li> <li>• there is existing aerial cabling using the poles to be used for the new telecommunications cables (for electricity or telecommunications or other utilities)</li> <li>• the diameter of the new cabling does not exceed 30 mm</li> <li>• cables use existing crossings and corridors (ie, no new road crossings may be installed).</li> </ul> <p>Associated earthworks and ancillary equipment may include (but is not limited to) fibre access terminals, fibre coils or loops, protection guards, ducting, and aerial to underground connections.</p> <p>Ongoing operation and maintenance of the network is permitted.</p> <p>Relocation and/or replacement poles where necessary for structural or safety reasons may be up to 3 m from the original location.</p>
<b>Underground cabling</b>	<p>Underground placement of telecommunications cables by a telecommunications operator is permitted, including any necessary drilling and trenching and associated earthworks and underground ancillary equipment, including (but not limited to) ducting, feeder breakout points, and hand holes or plinths.</p>
<b>Antennas on multi-storey buildings</b>	<p>The placement of antennas on the roof or side of a building is permitted, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• the building is no less than 15 m high</li> <li>• rooftop antennas do not extend 5 m beyond the part of the building to which they are attached</li> <li>• the diameter of the antenna at its widest point does not exceed 0.8 m.</li> </ul> <p>Lightning rods may extend beyond the height of the antennas.</p> <p>Associated cabinets with a footprint of no more than 2 m<sup>2</sup> and no more than 2 m high are permitted.</p> <p>All other equipment necessary for the operation of the antenna, such as the mast or other support structure, feeder cables and ancillary antennas, is permitted.</p>
<b>Antennas in rural areas</b>	<p>The placement of an antenna in an area zoned rural in the relevant district plan is permitted, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• the total height (of the mast and antenna) does not exceed 25 m</li> <li>• the diameter of the structure at its widest point (excluding the concrete plinth) does not exceed 6 m</li> <li>• the site is not a scheduled site or area subject to any special rules (eg, landscape provisions for outstanding natural landscapes or outstanding natural features)</li> <li>• the antenna is not located closer than 50 m from the boundary of an area zoned residential</li> <li>• the antenna is not located closer than 50 m from the closest external wall of a dwelling in a sensitive land-use area</li> <li>• lightning rods may extend beyond the height of the antenna</li> </ul>

Permitted activities	
	<ul style="list-style-type: none"> <li>• all equipment necessary for the operation and security of the antenna, such as the mast or other support structure, casing or coverings, feeder cables, ancillary antennas, cabinets, security equipment, fences, handrails, and steps or ramps, is permitted</li> <li>• the support structure is coloured recessive grey or recessive green</li> <li>• if any earthworks are required to prepare the site: <ul style="list-style-type: none"> <li>– the earthworks do not occur closer than 20 m from the nearest water body</li> <li>– the ground must be reinstated within 72 hours</li> </ul> </li> <li>• if any vegetation clearance (trimming or removal) is required to prepare the site: <ul style="list-style-type: none"> <li>– the tree(s) must not be scheduled</li> <li>– any indigenous vegetation must be reinstated or replaced within the practicable vicinity of the site.</li> </ul> </li> </ul>
<b>New masts to carry antennas in the road reserve</b>	<p>The installation of a new mast with antennas attached in the road reserve is permitted, subject to the following condition:</p> <ul style="list-style-type: none"> <li>• the total height and width of the mast and antenna is no larger than it would have been if installed in accordance with Regulation 7 (of the existing NESTF) on an existing utility structure within 100 m of the installation site. If there are multiple poles in the 100 m radius, operators must take the average of the poles.</li> </ul>
<b>Location of replacement utility structures</b>	<p>A replacement utility structure may be moved to within a 3 m radius of the original utility structure location, provided the structure is still located on the road reserve.</p>
<b>Size envelope for antennas</b>	<p>The antenna(s) – excluding the mount, if there is one, and the shroud, if there is one, and ancillary equipment, if there is any – must fit within the dimensions of a cylindrical shape that, when measured along the centre line of the mast (original utility structure or replacement utility structure), is not more than 3.5 m high and no more than 0.7 m in diameter.</p> <p>The height of the replacement utility structure must be no more than the original utility structure’s highest point, plus the lesser of 3.5 m or 35 per cent.</p>
<b>Size of replacement utility structure (including the antenna and the mast)</b>	<p>The replacement utility structure must not have a diameter that is more than the original utility structure’s diameter at its largest point, plus 100 Per cent.</p>
<b>Replacement of existing antennas to improve service or operate on additional or new spectrum bands such as the new 700 MHz spectrum band</b>	<p>Replacing an existing antenna with a larger antenna capable of operating over additional or new spectrum bands is permitted, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• the total height of the replacement infrastructure (mast and antenna) is no more than 2 m higher than the total height of the existing infrastructure</li> <li>• the diameter of the replacement antenna is no more than the diameter of the existing antenna, plus 50 per cent</li> <li>• the diameter of any existing mast is extended no more than the diameter of the existing mast, plus 30 per cent</li> <li>• the existing mast and antenna are lawfully established (ie, authorised by a regulation, plan or consent under the RMA).</li> </ul> <p>Lightning rods may extend beyond the height of the antenna.</p> <p>An additional cabinet with a footprint of no more than 2 m<sup>2</sup> and no more than 2 m high housing the necessary equipment of the additional telecommunications operator(s) may be installed at the site.</p> <p>Additional ancillary equipment (such as feeder cables) on the outside of the support structure is permitted.</p>

<b>Permitted activities</b>	
<b>Additional antennas at existing sites to improve service or operate on additional or new spectrum bands such as the new 700 MHz spectrum band</b>	<p>Installation of additional antennas at a telecommunications operator's existing site (ie, on an existing mast on which a telecommunications operator has an existing antenna) to ensure the site is capable of operating over additional or new spectrum bands is permitted, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• the total height of the replacement infrastructure (mast and antenna) is no more than 2 m higher than the total height of the existing infrastructure</li> <li>• the total diameter of the head frame of the structure at its widest point is no more than the diameter of the existing structure plus 100 per cent</li> <li>• the diameter of any existing mast at its widest is extended no more than the diameter of the existing mast, plus 30 per cent</li> <li>• the area is not zoned residential in the relevant district plan</li> <li>• the existing mast and antenna are lawfully established (ie, authorised by a regulation, plan or consent under the RMA).</li> </ul> <p>Lightning rods may extend beyond the height of the antenna.</p> <p>An additional cabinet with a footprint of no more than 2 m<sup>2</sup> and no more than 2 m high housing the necessary equipment of the additional telecommunications operator(s) may be installed at the site.</p> <p>Additional ancillary equipment (such as feeder cables) on the outside of the support structure is permitted.</p>
<b>Co-location of multiple telecommunications operators' antennas</b>	<p>Increasing the total height of an existing mast and antenna by up to 5 m is permitted, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• one or more additional telecommunications operators place an antenna on the existing mast at the time the height is increased</li> <li>• the area is not zoned residential in the relevant district plan</li> <li>• the existing mast and antenna are lawfully established (ie, authorised by a regulation, plan or consent under the RMA)</li> <li>• this provision is not applied to a single site more than once</li> <li>• telecommunications operators cannot exercise this right of activity until they have disclosed their co-location agreement with the relevant local authority and the Ministry of Business, Innovation and Employment.</li> </ul> <p>Lightning rods may extend beyond the height of the antenna.</p> <p>An additional cabinet with a footprint of no more than 2 m<sup>2</sup> and no more than 2 m high housing the necessary equipment of the additional telecommunications operator(s) may be installed at the site.</p> <p>Additional ancillary equipment (such as feeder cables) on the outside of the support structure is permitted.</p>
<b>Small-cell units in the road reserve</b>	<p>Installation of a small-cell unit on a structure (eg, bus stops, cabinets, traffic poles, signage, light poles) and all ancillary equipment necessary for the operation of the small-cell unit (eg, mounts, cables, combiner / junction boxes) by a telecommunications operator within the road reserve is permitted, subject to the following condition:</p> <ul style="list-style-type: none"> <li>• the small-cell unit and the ancillary equipment do not exceed a volumetric dimension of 0.11 m<sup>3</sup>(eg, 700 mm high x 500 mm wide x 300 mm deep).</li> </ul>
<b>Small-cell units on private land (eg, on the outside of buildings)</b>	<p>Installation of a small-cell unit on private land (eg, on the outside of a building) and all ancillary equipment necessary for the operation of the small-cell unit (eg, mounts, cables, combiner/junction boxes) by a telecommunications operator is permitted, subject to the following condition:</p> <ul style="list-style-type: none"> <li>• the small-cell unit and the ancillary equipment do not exceed a volumetric dimension of 0.11 m<sup>3</sup> (eg, 700 mm high x 500 mm wide x 300 mm deep).</li> </ul>

**Table A1.2: Proposed amendments to standards for existing permitted activities**

Amendments	
<b>Expanding conditions under Section 6 to include telecommunications facilities outside the road reserve</b>	Conditions protecting trees and vegetation, historic heritage values, visual amenity, coastal marine areas, and natural hazard zones will apply to all activities under the NESTF.
<b>Adding 'natural hazard zones' to section 6</b>	Conditions managing infrastructure in natural hazard zones in the relevant district plan will prevail over the NESTF where they are more stringent than the NESTF requirements.
<b>Incorporation by reference</b>	Replace reference to NZS 6609.2:1990 <i>Radiofrequency Radiation – Principles and Methods of Measurement – 300 kHz to 100 GHz</i> with reference to AS/NZS 2772.2:2011 <i>Radiofrequency Fields Part 2: Principles and Methods of Measurement and Computation – 3 kHz to 300 GHz</i> .
<b>Clarification of per 'site' terminology</b>	'Site' will be defined as an area where cabinets are located. The requirement that each site must be located a minimum of 30 m from another site will remain unchanged.
<b>Time for cabinets to be replaced</b>	Two cabinets on the same side of the road may be located within 30 m of each other, but more than 500 mm apart, as a permitted activity subject to the following conditions: <ul style="list-style-type: none"> <li>• the replacement cabinet is being installed to replace the existing cabinet</li> <li>• the existing cabinet must be removed no later than 12 months following installation of the replacement cabinet.</li> </ul>
<b>Additional cabinets</b>	This condition applies if two or more cabinets are located at the same site in a road reserve next to land that a relevant district plan or proposed district plan classifies as primarily for residential activities. Each cabinet's footprint must be no more than 1.4 m <sup>2</sup> . The total footprint of all the cabinets must be no more than 2 m <sup>2</sup> . The distance between each cabinet and the cabinet or cabinets closest to it must be no more than 500 mm. The cabinets must be no higher than the height of the concrete foundation plinths, if there are any, plus 1.8 m.