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[REDACTED]
NSW Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear [REDACTED]

Re: NSW Planning System Review – Proposed changes to Statewide streamlined approvals code

Thank you for the discussion we had last week on this matter. As requested, attached please find information on amateur radio antenna masts prepared by the WIA for your consideration.

A framework for exempt and complying development is sought so that the activities, applications and practices available to radio amateurs are not unnecessarily or inadvertently fettered in the future as the range of technologies, applications and activities available to radio amateurs continues to develop and diversify.

Summary of Amateur Radio Requirements

The design, construction, siting and performance of a radiocommunications antenna system are dependent on the **wavelength** of the operating frequency.

- a) The most popular and widely used amateur band for global communications is the '20 metre' band (14.0 to 14.35 MHz). The minimum preferred height for horizontal wire or beam antennas for this band is half a wavelength, which is 10.7 metres.
- b) Masts of 10 metres to 15 metres height used to mount antennas for the upper-HF, VHF and UHF bands represent the minimum to raise antennas above the "clutter" of the built environment within and surrounding a residential property.
- c) As you may be aware, in terms of residential streetscapes, electricity transmission line pole heights range from five to eight metres for low voltage distribution and up to 12, 15 and 17 metres where both low and high voltage transmission lines are carried together on common poles. Amateur radio masts of up to 15 metres height would have similar or lesser streetscape impact compared to electricity transmission line poles.
- d) To meet electromagnetic energy regulatory requirements, the mounting heights of antennas are an important factor.
- e) Radio amateurs should be permitted to erect more than one radio mast or antenna on a domestic property. In reality, there are practical as well as technical limits that constrain the number of radio mast and antenna erections on a domestic property. Radio amateurs need flexibility to pursue their interests on amateur radio frequency bands anywhere across the radiofrequency spectrum.

- f) As amateur radio is essentially experimental by definition* and its nature, radio amateurs need the freedom to mount antenna systems of their own choosing to a mast or masts that meet code-based approval, without having to submit a development application for the antenna systems. This situation pertains to radio mast exemption regulations in South Australia and Victoria
- g) In terms of safety, when making the investment to install a mast, the radio amateur does not wish to see their investment and the investment in antenna systems supported by a mast, destroyed by a collapse as a result of poor design or inadequate installation. Commercial masts are readily available that are designed to meet Australian Standard AS 1170. The WIA suggests that, for masts above 10 metres height, the only specification required is that a mast meets AS 1170.
- h) The WIA suggests there may be scope in the streamlined approvals code to relax mast height specifications in regional and rural areas, to allow masts with heights greater than specified in urban areas.

I trust this information is of assistance in your considerations.

Should you need to have any matters clarified or expanded, please don't hesitate to contact me. I can be reached by phone on [REDACTED], or email, at: [REDACTED].

I look forward to hearing from you.

Yours sincerely

Phil Wait
President

* Amateur Radio is defined in the International Telecommunications Union Radio Regulations Article 1:

1.56 Amateur service: A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest.