



Part C – Specific Landuse Controls

Chapter C17: Telecommunications and Radiocommunications Facilities

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1 INTRODUCTION

Telecommunications and radiocommunications facilities are vital infrastructure components of modern communication systems.

Telecommunications and radiocommunications facilities include telecommunications towers, masts and antennas, base stations, satellite-based facilities, radiocommunications transmitters and their supporting infrastructure and ancillary development.

It is important for these facilities to be well sited and designed to avoid adverse visual impacts, comply with electromagnetic energy emission exposure limits and minimise environmental and amenity impacts.

Council is the consent authority for telecommunications and radiocommunications facilities that require development consent under the *Environmental Planning and Assessment Act 1979*. These are facilities not identified in the *Telecommunications (Low Impact Facilities) Determination 2018* as ‘low impact facilities’.

2 PURPOSE

The purpose of this chapter of the DCP is to provide development controls applicable to the design, siting, construction, safety, security and environmental and public health impacts of telecommunications and radiocommunications facilities, including broadcasting infrastructure covered by the Commonwealth *Telecommunications Act 1997* and the Commonwealth *Radiocommunications Act 1992*.

3 LAND TO WHICH THIS CHAPTER APPLIES

This chapter applies to all lands within the Wollongong Local Government Area (LGA).

4 DEVELOPMENT TO WHICH THIS CHAPTER APPLIES

1 This chapter applies to all proposed new telecommunications and radiocommunications facilities and modifications to existing facilities, which require Council development consent under the *Environmental Planning and Assessment Act 1979*.

2 This chapter does **not** apply to:

- a Low-impact facilities as described in the Commonwealth *Telecommunications (Low-impact Facilities) Determination 2018*; or
- b Aerials, antennae and communication dishes specified as “Exempt Development” under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

5 OBJECTIVES

The objectives of this chapter are to:

- a Minimise the public health risk associated with the operation of telecommunications and radiocommunications facilities, particularly in regards to sensitive locations;
- b Promote good industrial design of infrastructure;
- c Provide infrastructure that is compatible with the surrounding character and visual context of the locality, with particular regard to heritage items, conservation areas and cultural icons;
- d Minimise any adverse local environmental and amenity impacts associated with the installation and operation of telecommunications and radiocommunications facilities.

6 RELEVANT LEGISLATION, CODES AND STATE GOVERNMENT GUIDELINE

The following are relevant to this chapter:

- *Telecommunications Act 1997* (Commonwealth)
- *Radiocommunications Act 1992* (Commonwealth)
- *Telecommunications Code of Practice 2018* (Commonwealth)
- *Telecommunications (Low-impact Facilities) Determination 2018* (Commonwealth)
- *State Environmental Planning Policy (Infrastructure) 2007*
- Mobile Phone Base Station Deployment Industry Code (2020)
- NSW Telecommunications Facilities Guideline Including Broadband (2010).

7 DESIGN AND SITING CONTROLS

7.1 Facility Health Controls

- 1 Telecommunications and radiocommunications facilities must be designed, installed and operated so that the maximum human exposure levels to radio frequency EME comply with the exposure standards specified by the Australian Communications and Media Authority.
- 2 Development applications must include an EME assessment in accordance with the ARPANSA prediction methodology and report format (accessible via ARPANSA's website) demonstrating the predicted levels of radio frequency EME surrounding the proposed development comply with exposure standards specified by the Australian Communications and Media Authority.
- 3 The cumulative impact of all existing facilities, combined with the proposed new facility, must be assessed. The development application must be supported by a map which identifies other facilities within a 500 metre radius of the proposed new facility, and an analysis of the cumulative total level of radio frequency EME within the locality, with and without the proposed facility, by reference to the relevant exposure standard.

7.2 Design and Construction

- 1 A proposed facility must avoid and minimise adverse impacts on the landform, vegetation or features of a location that has special aesthetic, architectural, landscape, ecological or conservational value, as identified through Council's public Planning & Environment Map.
- 2 A proposed facility must be well designed to minimise its visual impact. Within the local context, the proposed facility design must take into account colour, texture, form, bulk and scale.
- 3 Actions to minimise visual impact may include:
 - integration with the design and appearance of an existing building or structure,
 - concealed cables,
 - painting and finishes of towers and ground level structures,
 - height and colour of any security fencing around a stand-alone facility; and
 - site landscaping complementary to the surrounds.
- 4 Antennas and mast structures must be located so as to not be visible, or to be as visually unobtrusive as possible from the fronting road at pedestrian eye level.

The location of antennas and mast structures at the rear of buildings should be considered, rather than on street frontages, impacting on the streetscape. Radio transparent materials may allow antennas to be concealed inside structures.

- 5 Towers must be of 'slimline monopole' construction.
- 6 A proposed facility, including any maintenance access or asset protection zone for a proposed tower is to be designed, sited and constructed to avoid or minimise impacts on indigenous flora and fauna, including threatened biodiversity.
- 7 The facility must be designed and constructed to restrict public access to the antenna(s). Approaches to the antenna(s) must contain appropriate signs warning of EME and provide contact details for the owner and/or site manager of the facility.

7.3 Co-location

- 1 Telecommunications and radiocommunications facilities are to be co-located with existing facilities where available and feasible. This may include:
 - sharing of existing antennas between providers/carriers;
 - co-location of antennas on an existing tower that has been established by another carrier; or
 - co-location on building rooftops.
- 2 Exemptions to co-location under clause 1 may apply where:
 - adding additional antennas results in radio frequency EME emissions exceeding the maximum human exposure levels set out in the ARPANSA Radiation Protection Standard;
 - a relatively worse visual impact outcome would result from co-location;
 - there are physical and technical limits to the amount of infrastructure that structures are able to support; or
 - no existing facility can provide equivalent site technical specifications including meeting requirements for coverage objectives, radio traffic capacity demands and sufficient call quality.

7.4 Location

- 1 The siting of facilities in locations of high aesthetic, ecological or cultural value should be avoided.
- 2 Development applications for facilities should demonstrate that in selecting a site a precautionary approach consistent with the Mobile Phone Base Station Deployment Industry Code (2020) has been adopted in regards to minimising EME exposures.
- 3 The applicant must provide justification for the proposed location which sets out why it is the most appropriate having regard to alternative sites, the details of which must also be provided. The statement of environmental effects which accompanies the development application must also explain how potential conflicts with adjoining land uses will be avoided, mitigated and managed.
- 4 The land use zone for the siting of a proposed facility must be considered, giving priority to the following zones in descending order of preference by Council:
 - a Industrial (IN1, IN2, IN3, IN4)
 - b Business (B1, B2, B3, B4, B6, B7)
 - c Open space/corridor land/drainage reserves (RE1, RE2)
 - d Rural (RU1, RU2, RU4)
 - e Residential (R2, R3, R4, R5)
 - f Special uses containing sensitive land uses, such as schools, child care facilities, hospitals, seniors housing (SP1, SP2, SP3).
- 5 Residential and special use zones and sensitive locations should be avoided.

- 6 The choice of site should also consider likely future adjoining land uses such as likely future sensitive locations/services, based on land use zoning.
- 7 Facilities proposed to occur within the Wollongong Local Environmental Plan 2009 mapped Illawarra Escarpment area must consider clause 7.8 of Wollongong Local Environmental Plan 2009 and the potential impacts on escarpment values as outlined in the Illawarra Escarpment Strategic Management Plan 2015.

7.5 Heritage

- 1 A facility must not be located on roof tops or within the curtilage of a site identified as an item of State or local heritage or within a heritage conservation area as identified in Wollongong LEP 2009.
- 2 A facility must not be located in a locality where in the opinion of Council the streetscape character is significantly influenced or defined by heritage items or the heritage significance of adjoining or nearby heritage items and/or heritage conservation areas may be adversely impacted by the proposed facility.
- 3 The applicant is to avoid the visual impact of any proposed facility on the heritage significance of any adjoining or nearby heritage item and/or contributory items within a heritage conservation area.
- 4 A Heritage Impact Statement may be required for any proposed facility within close proximity to or within the visual catchment of a heritage item or heritage conservation area where in the opinion of Council, the proposal has the potential to impact upon the setting of the heritage item or heritage conservation area. It is strongly recommended that prospective applicants arrange a pre-lodgement meeting and request attendance by Council's Heritage Coordinator for advice as to whether a Heritage Impact Statement is necessary for any proposal within proximity to a heritage item or heritage conservation area.

8 DEVELOPMENT APPLICATION INFORMATION REQUIREMENTS

- 1 A Development Application for a telecommunications or radiocommunications facility must include:
 - a Statement of Environmental Effects, including details of alternative sites considered, how potential land use conflicts will be managed and details addressing sections 7.1 to 7.5 of this DCP Chapter and the principles contained in the NSW Telecommunications Facilities Guideline including Broadband (2010);
 - b Where applicable, how the requirements of clause 7.8 'Illawarra Escarpment Area Conservation' of Wollongong Local Environmental Plan 2009 have been addressed;
 - c Site/locality analysis plan showing prominent views and vistas and methods used for minimising any adverse impacts of antennas and masts (and associated equipment and structures);
 - d Site plan;
 - e Elevation plan;
 - f Photomontage of the proposed facility in context of the location;
 - g An EME assessment report prepared in accordance with the ARPANSA prediction methodology and report format;
 - h An assessment of the cumulative impact of all existing and proposed telecommunications or radiocommunications facilities in the locality as outlined in section 7.1(3) above.

- i For a stand-alone facility – a Landscape Concept Plan;
- j For a proposed facility in the vicinity of a State or local heritage item or heritage conservation area – a Heritage Impact Statement;
- k For a proposed facility in the vicinity of a State or local heritage item or heritage conservation area, including the Illawarra Escarpment State Heritage Conservation Area – a Visual Impact Assessment that considers the impact on significant view corridors to and from the heritage item or heritage conservation area.

9 CONDITIONS OF DEVELOPMENT CONSENT

- 1 In the event that development consent is granted to an application for a telecommunications or radiocommunications facility, conditions of consent relating to the following matters are likely to be imposed:
 - a Restoration of the site following construction of the facility;
 - b Colour requirements for monopoles;
 - c Operation of the facility in accordance with all statutory requirements and the requirements of the Australian Communications and Media Authority and the Australian Radiation Protection and Nuclear Safety Agency;
 - d Maintenance of the site and its facilities in a proper and safe condition at all times throughout its lifespan; and
 - e Removal of the facility when it is no longer required and the site restored to a condition similar to its condition before the facility was constructed.

ACRONYMS AND DEFINITIONS

The meanings of the following acronyms and terms used in this chapter are included here for clarification only and do not replace the definitions contained within the legislation.

ARPANSA: Australian Radiation Protection and Nuclear Safety Agency.

Co-location: The practice of locating a number of different communications facilities, often owned by different carriers, on one facility or structure.

Cumulative impact: The sum of the impacts from a number of different sources or over time.

EME: Electromagnetic energy. The radiation in the microwave and radiofrequency band of the electromagnetic spectrum.

Low-impact facility: A facility that is exempted from state and council local planning laws under the Commonwealth Telecommunications (Low Impact Facilities) Determination 2018.

Radiation Protection Standard: The ARPANSA (2021) Standard for Limiting Exposure to Radiofrequency Fields – 100 KHz to 300 GHz.

Radiocommunications facility: A base station or radiocommunications link, satellite-based facility or radiocommunications transmitter.

Sensitive locations: Examples of locations that may be considered to be sensitive include residential areas, schools, child care facilities, hospitals and seniors housing.

Telecommunications facility: (a) Any part of the infrastructure of a telecommunications network, or (b) any line, cable, optical fibre, fibre access node, interconnect point, equipment, apparatus, tower, mast, antenna, dish, tunnel, duct, hole, pit, pole or other structure in connection with a telecommunications network, or (c) any other thing used in or in connection with a telecommunications network.

Telecommunications network: A system, or series of systems, that carries, or is capable of carrying, communications by means of guided or unguided electromagnetic energy or both.