



Department of
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Western
Australian
Planning
Commission

STATE PLANNING POLICY

5.2

Telecommunications
Infrastructure

September 2015

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and Development Act 2005 by the Western
Australian Planning Commission*

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1. CITATION

This is a State Planning Policy prepared under Part 3 of the *Planning and Development Act 2005*. This policy may be cited as *State Planning Policy 5.2: Telecommunications Infrastructure Policy*.

After this policy has been gazetted, Statement of Planning Policy 5.2 Telecommunications Infrastructure (2004) will be repealed.

2. POLICY INTENT

Installation of telecommunications network infrastructure usually involves the development of land and/or alteration to the appearance of buildings or structures, which may have visual impacts. This planning policy aims to balance the need for effective telecommunications services and effective roll-out of networks, with the community interest in protecting the visual character of local areas. Using a set of land use planning policy measures, the policy intends to provide clear guidance pertaining to the siting, location and design of telecommunications infrastructure.

3. BACKGROUND

Adequate and reliable telecommunications are essential for all aspects of contemporary community life, from supporting the State's economy to creating and maintaining connected and cohesive social networks. Contact between emergency services and the community increasingly relies on the telecommunications networks.

The importance of telecommunications services in Western Australia is recognised in the Western Australian Planning Commission's (WAPC's) *State Planning Strategy 2050* (2014), which advocates for the provision of an effective state-wide telecommunications network. This network includes both above and below ground infrastructure to support both fixed line and wireless telecommunications.

3.1 Electromagnetic Emissions (EME)

The use of mobile telephones has raised public concern about possible health issues associated with exposure to electromagnetic emissions. However, telecommunications carriers must comply with the Australian Communications and Media Authority (ACMA) *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003*. These licence conditions make mandatory the limits in the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) *Radiofrequency (RF) Standard* which sets limits for human exposure to RF electromagnetic fields from all sources, including telecommunications infrastructure. ARPANSA is the primary Commonwealth agency responsible for protecting the health and safety of people and the environment from the harmful effects of radiation.

Measurement surveys undertaken by ARPANSA demonstrate that environmental radiofrequency levels near base stations for the mobile telephone network are extremely low. The ARPANSA surveys reported that typical exposures to radiofrequency fields were well below one per cent of the Standard's public exposure limits. It concluded that *"given the very low levels recorded and the relatively low power of these types of transmitters, it is unlikely that the radiofrequency radiation from base stations would cause any adverse health effects, based on current medical research"*.

Standards set by ARPANSA incorporate substantial safety margins to address human health and safety matters; therefore it is not within the scope of this Policy to address health and safety matters. Based on ARPANSA's findings, setback distances for telecommunications infrastructure are not to be set out in local planning schemes or local planning policies to address health or safety standards for human exposure to electromagnetic emissions.

3.2 Where this policy applies

This policy applies throughout Western Australia in respect to above and below ground telecommunications infrastructure other than those facilities exempted under the Commonwealth *Telecommunications Act 1997* (Telecommunications Act). (See Section 3.5 Policy Exemptions for further information)

All other facilities constitute 'development' under the *Planning and Development Act 2005* and development approval may be required from the relevant planning authority. Separate approval may also be required from other government agencies under other legislation.

3.3 Above ground telecommunications infrastructure

For the purposes of this policy, above ground telecommunications infrastructure refers to any line, equipment, apparatus, tower, antenna or any other structure that is visible above ground level.

3.3.1 Mobile telephone networks

Mobile telephone networks operate through base stations, which incorporate a radio transmitter, a receiver and an antenna. Base stations provide coverage to a geographic area known as a 'cell', which may vary in size but generally has a radius of up to 10 kilometres. Each cell has its own transceiver which sends and receives radio signals throughout its specified zone.

The location of new mobile telephone base stations needs to be carefully considered in relation to existing base stations, to ensure that the network functions effectively. Mobile telephone antennas generally need to be mounted clear of surrounding obstructions like trees and buildings to avoid loss of reception and to allow each mobile telephone base station to cover its intended cell with minimum transmitter power. They must also be sited where they will not interfere with neighbouring cells. The more base stations of a particular carrier there are in an area, the smaller the cells, which means the power and energy levels of each station are generally lower. In areas of high mobile use there are many small cells to meet traffic demands, maintaining service quality and capacity. Antennas do not need to be very high and can be installed on building roofs or small poles. If additional base stations are needed in areas where mobile network coverage already exists, demand may be met by adding

more panels to existing towers, or by constructing new towers. In areas of low mobile use, the cells are larger and the antennae are mounted on taller masts and towers.

As telecommunications networks expand due to increasing demand for mobile telephone and data services, the location, siting and design of proposed facilities becomes critical.

3.3.2 National Broadband Network fixed wireless broadband towers

National Broadband Network (NBN) fixed wireless broadband towers are usually bigger than mobile phone towers, and are more likely to be required in metropolitan fringe and regional areas.

Fixed wireless technology can transmit data at broadband speeds using radio signals instead of cables. This technology uses fixed transmission towers or base stations to communicate 'over the air' with the NBN installed equipment within the home or business. Line of sight from the tower to the equipment at the home or business is essential. Western Australia is a vast state with complex geography and fixed wireless technology enables access to NBN services in locations that are difficult or not cost effective to reach with fixed line technology.

3.3.3 Amateur radio equipment

The amateur service is designed primarily to facilitate hobby radio communications and for technical experimentation and operates on specified frequency bands. Amateur radio operators communicate using transmission modes including, but not limited to, Morse code, telephony and data.

Anyone can listen to the amateur bands using a receiver, but to transmit, operator qualifications and a licence issued by the Australian Communications and Media Association (ACMA) are required.

An amateur apparatus licence is issued to authorise a station that:

- a) is operated for the purposes of self-training in radio communications; intercommunication using radio communications; and technical investigation into radio communications by persons who do so solely with a personal aim, and who have no pecuniary interest in the outcome of the operations of the station;
- b) is operated on amateur frequencies or amateur frequency bands; and
- c) may participate in the amateur-satellite service.

3.4 Below ground telecommunications infrastructure

For the purposes of this policy, below ground infrastructure refers to pit and pipe infrastructure used to house fixed line (fibre, Hybrid Fibre Coaxial, copper) to carry voice and data services.

In accordance with the Fibre Deployment Amendment 2011 to the Telecommunications Act, developers that are corporations are required to provide fibre-ready pit and pipe infrastructure to new developments that are within the National Broadband Network Corporations' (NBN Co) fibre footprint.

Developers of all new developments are encouraged to engage with a telecommunications carrier to ensure that pit and pipe infrastructure complies with industry specifications or any standards set by the ACMA.

3.5 Policy exemptions

Some telecommunications facilities are exempted from development approval under the Telecommunications Act.

Schedule 3 of the Telecommunications Act and related subordinate legislation provides telecommunications carriers with powers to enter land to inspect land, maintain facilities and install certain types of facilities (known as low-impact facilities), and immunity from some state and territory laws, including planning laws, when carrying out these activities.

Schedule 3 of the Telecommunications Act includes:

- low-impact facilities described in the Telecommunications (*Low-Impact Facilities*) *Determination* 1997 and all existing and future amendments, when installed by a carrier;
- a temporary defence facility; and
- a facility authorised by a Facilities Installation Permit issued under the Telecommunication Act.

Carriers seeking to install low-impact facilities are required to comply with Schedule 3 of the Telecommunications Act and the Telecommunications Code of Practice 1997.

3.6 When this policy should be applied

Due regard should be given to this policy by State and local government planning decision-makers for:

- a) The preparation and assessment of local planning schemes and local planning policies;
- b) The preparation of local structure plans; and
- c) Development proposals for telecommunications infrastructure.

3.7 Relationship of this policy to Commonwealth legislation

The Telecommunications Act provides the regulatory framework for the Australian telecommunications industry. All telecommunications carriers and service providers must comply with the Act and its subordinate legislation. The ACMA is empowered through the Telecommunications Act to regulate and monitor the performance of the industry, and reports to the Minister for Communications annually.

Relevant amendments to the Telecommunications Act include:

- *Telecommunications Legislation Amendment (Fibre Deployment) Act 2011* - This amendment to the Telecommunications Act provides a framework for the roll-out of the National Broadband Network, specifically the deployment of optical fibre lines and fibre-ready infrastructure.

Other relevant Commonwealth legislation and subordinate codes include:

- *National Broadband Network Companies Act 2011* – This Act provides a regulatory framework for NBN Corporations that promotes the long term interests of end-users of carriage services or of services provided by means of carriage services; and
- *Mobile Phone Base Station Deployment Industry Code (C564:2011)* – This code applies a precautionary approach to the deployment of mobile telephone infrastructure to ensure that the exposure of the community to EME is minimised. It also sets out a consultation procedure for infrastructure development that does not require development approval (low impact facilities).

This policy complements the Telecommunications Act and other relevant and subordinate legislation.

4. POLICY OBJECTIVES

The objectives of this policy are to:

- a) facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs;
- b) manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure;
- c) ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons; and,
- d) promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure.

5. POLICY MEASURES

5.1 Visual impacts

For telecommunications infrastructure to be effective, structures are generally located prominently, at high points in the landscape or on top of buildings, where they are more likely to be visible to the public.

The planning authority may exercise discretion in addressing the visual impacts of telecommunications infrastructure. Visual impacts of an infrastructure development proposal should be assessed by applying the following set of policy measures to guide the location, siting and design of the structure.

5.1.1 The benefit of improved telecommunications services should be balanced with the visual impact on the surrounding area.

- i) Assessment of the visual impact of development proposals for telecommunications infrastructure should be made on a case by case basis;
- ii) Telecommunications infrastructure should be sited and designed to minimise visual impact and whenever possible:
 - a) be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites;
 - b) be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land;
 - c) not be located on sites where environmental, cultural heritage, social and visual landscape values maybe compromised and

- d) display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape;
- iii) In addition to the existing exemptions under the Telecommunication Act, local governments should consider exempting telecommunications infrastructure from the requirement for development approval where:
 - a) The infrastructure has a maximum height of 30 metres from finished ground level;
 - b) The proposal complies with the policy measures outlined in this policy; and
 - c) The proponent has undertaken notification of the proposal in a similar manner to 'low impact facilities' as defined and set out in the Mobile Phone Base Station Deployment Industry Code (C564:2011);
- iv) Telecommunications infrastructure should be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community; and
- v) Telecommunications infrastructure should be co-located and whenever possible:
 - a) Cables and lines should be located within an existing underground conduit or duct; and
 - B) Overhead lines and towers should be co-located with existing infrastructure and/or within existing infrastructure corridors and/or mounted on existing or proposed buildings.

Section 6.3.1 provides guidance on what applicants should submit in support of a development application to assist planning assessment.

6. IMPLEMENTATION

This policy is given effect by the *Planning and Development Act 2005*. Telecommunications infrastructure should be included as a relevant planning consideration in the preparation and assessment of local planning schemes and local planning policies, structure plans (at the local level) and development applications.

6.1 Local planning schemes and local planning policies

When preparing or reviewing local planning schemes or local planning policies, local governments should ensure that:

- a) Telecommunications infrastructure is included in the zoning table as a land use;
- b) Telecommunications infrastructure is not designated as a 'use not permitted' (X) by the scheme in any zone in the zoning table;
- c) In zones where the location of telecommunications infrastructure is supported, telecommunications infrastructure is designated as a permitted use (P) in the zoning table;
- d) In zones where telecommunications infrastructure is permitted, the Scheme provides guidance on development approval exemptions;
- e) Buffer zones and/or setback distances are not included in local planning schemes or local planning policies; and
- a) Schemes and policies adhere to the policy measures outlined in Section 5 of this policy.

6.2 Structure planning at the local level

- a) In the preparation and assessment of structure plans at the local level, consideration should be given to the need for telecommunications services in supporting documentation. Early consideration of wireless and mobile phone telecommunication system requirements allows for them to be incorporated into the design process and mitigate any potential visual impacts to the community.

6.3 Development

In considering a development application, the local government should give consideration to:

- a) The extent to which the proposal adheres to the policy measures outlined in Section 5 of this policy
- b) The need for services to be located to optimise coverage; and
- c) Documentation to be submitted under Section 6.3.1 of this Policy.

The advertising period for a development proposal should be no more than 21 days.

6.3.1 Information to be submitted when lodging a development application

In addition to the requirements for development applications under the relevant local planning scheme, development applications for telecommunications infrastructure are to include the following information:

- a) a report demonstrating compliance with the Mobile Phone Base Station Deployment Industry Code

(C564:2011), excluding Sections 6 and 7 (which only apply to developments that do not require development approval);

- b) a statement and/or a map indicating the extent to which the proposed facility addresses the network capacity for future demand and/or current gaps in service;
- c) a statement about the extent to which the proposed facility complies with any relevant local planning scheme or planning policy adopted under a scheme and (if applicable) justification for any variation from the relevant scheme or policy provisions;
- d) plans and coloured graphic illustrations, including photo simulations, showing the type of facility and its relationship with adjacent development, including the proposal's elevations showing the extent, height and appearance, proposed materials and colour, any screening or fencing, and any external lighting;
- e) details of any significant environmental constraints, including those associated with the species, condition and significance of any vegetation to be removed;
- f) map and a statement about where the proposed facility is to be located. If the facility is proposed within an infrastructure easement or corridor, consultation with other users is to be demonstrated; and
- g) a statement explaining how the proposed facility addresses the policy measures for the location, siting and design of telecommunications infrastructure set out in Section 5.1.1 of this Policy.

7. DEFINITIONS

Telecommunications Carrier has the same meaning given to the term in the *Telecommunications Act 1997*.

Fibre-ready Facility has the same meaning given to the term in the *Telecommunications Act 1997*.

Relevant health and safety standard means health and safety standards specified for the installation and operation of telecommunications facilities under the:

- *(Commonwealth) Telecommunications Code of Practice 1997;*
- *(Commonwealth) Radiocommunications Act 1992;*
- *Mobile Phone Base Station Deployment Industry Code (C564:2011) (this is a document prepared by the Communications Alliance and registered with the ACMA as an Industry Code)*

Telecommunications infrastructure means any part of the infrastructure of a telecommunications network and includes any line, equipment, apparatus, tower, antenna, tunnel, duct, hole, pit, or other structure used, or for use, in or in connection with a telecommunications network.

Service provider has the same meaning given to the term in the *Telecommunications Act 1997*

National Broadband Network has the same meaning given to the term in the *National Broadband Companies Act 2011*

National Broadband Network Corporation has the same meaning given to the term in the *National Broadband Companies Act 2011*

Radiocommunications has the same meaning given to the term in the *Radiocommunications Act 1992*

Pit and pipe infrastructure refers to pits and conduits installed in subdivisions to house fixed line telecommunications cable.

Fibre-ready facility has the same meaning given to the term in the *Telecommunications Act 1997*

Carriage services include services for carrying communications, for example telephone services, Internet access services and Voice over Internet Protocol (VoIP) services.