

Planning for Mobile Telecommunications in New Communities

May 2024



Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the lands, waters and seas and their rich contribution to society.



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Term	Definition
4G	The fourth generation of wireless communications technology, offering up to 100 megabits per second. 4G supports applications such as high-definition video and audio streaming.
5G	The fifth generation of wireless communications technology, offering up to 10 gigabits per second. 5G supports applications such as the internet of things networks and autonomous vehicles.
6G	The sixth generation of wireless communications technology expected to be available by 2030. 6G will enable transfer speeds of around 1024 gigabytes (1 terabyte) per second. 6G is predicted to support use cases such as real-time telesurgery and immersive virtual reality.
ACMA	The Australian Communications and Media Authority, an independent Commonwealth statutory authority. ACMA regulate communications and media services in Australia.
Antennas/aerial	A structure or device that sends or receives electromagnetic wave signals.
ARPANSA	The Australian Radiation Protection and Nuclear Safety Agency. ARPANSA protects the people and the environment from the harmful effects of radiation through research, the provision of services and regulation of Commonwealth entities that use radiation.
Broadband	Broadband describes the speed and capacity at which a telecommunications service is provided. A combination of the words 'broad' and 'bandwidth', it is a generic term that covers many different high-capacity telecommunication circuits. This includes two-way, always-on internet connections. Broadband is used to access the internet and to obtain high volumes of data at fast speeds.
Brownfield	Any land that has previously been built on.
Built environment	Refers to the human-made surroundings where people live, work, and enjoy recreational activities.
Cables	A type of inductive transmission medium. Cables are generally known to carry electrical energy (AC/DC). However, cables in the telecommunications field are used to transmit electromagnetic waves.
CDC	A Complying Development Certificate is a planning term. Complying development is a fast-track approval process for straightforward residential, commercial and industrial development.
Conduit	A tube or tray for protecting cabling.
DCP	A Development Control Plan is a planning term. A DCP provides detailed planning and design guidelines to support local government planning controls in the Local Environmental Plan. Each local government is required to publish its DCPs on the NSW Government's Planning Portal.
Determination (the)	Low-impact facilities as outlined in <i>Telecommunications (Low-impact Facilities) Amendment Determination 2021 (Cth)</i> . An amendment to the 2018 LIFD.

Term	Definition
Digital connectivity	The capacity for interconnections between digital platforms, systems and applications.
Digital equity	The conditions where all individuals and communities have the information technology capacity needed for full participation in society, democracy, and the economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.
Digital infrastructure	An encompassing term for the interconnected physical and virtual (software) infrastructure to support digital connectivity.
Digital networks	The network of digital communications technology – both software and hardware.
Digital services	Virtual service delivery, where customers can connect with government and businesses through digital means.
Electromagnetic radiation (EMR)	Energy on the radio wave spectrum used to send and receive signals between communications equipment such as broadcast towers, radios and televisions, mobile phone towers and phones, radar facilities, and electrical and electronic equipment.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> – NSW legislation governing the system for environmental planning and assessment.
Essential services	Infrastructure typically identified in NSW as mandatory for development approval, including water, electricity and sewerage.
Fibre/fibre optics	Passive infrastructure that is used for transmitting data, voice, and images by the passage of light through thin, transparent fibres.
Fixed infrastructure	Refers to wired networks (such as optical fibre) for telecommunications.
Frequency bands	Refers to the number of times per second an electromagnetic wave oscillates, measured in hertz (Hz) from 1 Hz (one oscillation per second) to 1GHz (a thousand million oscillations per second). Frequencies between 30 kHz and 300 GHz (the radiofrequency band) are widely used for telecommunications, and broadcast radio and television. Mobile telephone systems currently operate at 800MHz, 900MHz, 1800MHz and 2100MHz.
GHz	A gigahertz – a unit of frequency equal to one billion cycles per second.
Greenfield	Development on an undeveloped site.
KHz	A kilohertz – a unit of frequency equal to one thousand cycles per second.
LAAN	A Land Access Activity Notice is a document served under a carrier's statutory power under Schedule 3 of the <i>Telecommunications Act 1997 (Cth)</i> . A carrier's powers under Schedule 3 enables it to access land for the purpose of inspecting, installing, and maintaining low-impact telecommunications facilities.
LEP	A Local Environment Plan is a planning term. LEPs provide a framework that guides planning decisions for local government areas through zoning and development controls.
LIFD	Low-impact facilities as outlined in <i>Telecommunications (Low-impact Facilities) Determination 2018 (Cth)</i> .
Macro cells	Macro cells are cellular mobile phone base stations that work by providing coverage over a large area.

Term	Definition
Master planning	Master planning (also referred to as precinct planning) is a process that defines a vision, strategic directions and guidelines for a place. This ensures the orderly and efficient development of new precincts, such as a town centre or new residential community.
MNOs	Mobile network operators own and operate the infrastructure and other elements necessary for mobile communications. Also called carriers or wireless service providers, MNOs provide mobile services to subscribers.
NBN	National Broadband Network
NSW	New South Wales
Passive infrastructure	Physical infrastructure required to support and enable the positioning or conveying of connectivity assets in places. This can include items such as poles (including smart poles and multi-function poles), towers, masts, equipment shelters, and outdoor units; as well as mounts, footings, pits, pipes, conduits, access ducts, cable trays and similar items in which optic fibre cables can be installed.
Pipes	A tube used to convey cabling (or other substances such as water or gas).
Pits	A wiring enclosure used to provide space for placing and joining cables, pulling cables, performing an operation on cables, or for the inclusion of other equipment.
Precinct planning	Precinct planning (also referred to as master planning) is a process that defines a vision, strategic directions and guidelines for a place. This ensures the orderly and efficient development of new precincts, such as a town centre or new residential community.
Radiofrequency (RF)	A frequency or band of frequencies in the range 104 to 1011 or 1012 Hz, suitable for use in telecommunications.
SEPP	State environmental planning policies apply across the state. SEPPs are planning legislation and policies that set the rules to control what development can occur on specific areas of land.
Small cells	Small cells or micro cells comprise one or two antennas and associated equipment units. They supplement the mobile network by providing localised additional coverage and/or call capacity.
Smart infrastructure	Infrastructure that uses data gathered through sensors and technologies that are embedded in the infrastructure or surrounding environment.
Smart places	Smart places are where physical and digital environments converge. They integrate technologies into the built environment to capture and convey data and insights. The embedded technology helps to capture information on the asset or local environment. The data is analysed to help people and governments to make better, evidence-based decisions about how to improve the productivity, liveability and resilience of cities, towns and communities.
Smart poles/ multi-function poles	Smart poles integrate street poles such as light and power poles to include multiple technologies such as smart lighting systems, sensors, wireless connectivity (Wi-Fi and mobile base station for multiple Carriers), and other functions into one cohesive unit.
T&I SEPP	The <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> aims to benefits communities by providing a more efficient planning framework for infrastructure in NSW. The

Term	Definition
	T&I SEPP was introduced in 2021 and consolidated four previous SEPPs.
Telco Act	The <i>Telecommunications Act 1997 (Cth)</i> provides the regulatory framework for the provision of telecommunications services in Australia.
Telecommunications infrastructure / telecommunications facilities	Telecommunications infrastructure or telecommunications facilities is a form of digital infrastructure. Specifically, it refers to the physical infrastructure required for networks that carry voice and data between users across Australia and internationally. Telecommunications infrastructure is made up of connectivity assets and passive infrastructure.
TIND	The <i>Telecommunications in new developments (TIND) policy</i> provides guidance for developers, property buyers, occupants and telecommunications carriers. It is an Australian Government policy that seeks to ensure that people moving into homes in new developments have access to modern fixed and mobile telecommunications services, including broadband and voice.
Visual amenity	The visual or cumulative visual impact from an area’s public domain and adjacent zones.

1. Introduction

This Planning for Mobile Telecommunications in New Communities (the Guide) has been developed to provide guidance on the coordinated and timely delivery of mobile digital connectivity within new communities. Specifically, it relates to greenfield master-planned precincts that are subject to the NSW planning system.

All new communities in NSW are being constructed to be fibre-ready to provide broadband. This is a standard requirement under the *Telecommunications Act 1997 (Cth)* (Telco Act) and *Telecommunications in new developments* policy (TIND). The latter was updated in February 2024, and expanded the scope to include mobile coverage.

The *Environmental Planning and Assessment Act 1979 (NSW)* (EP&A Act) does not specifically consider the provision of mobile digital connectivity. However, it does provide further guidance to facilitate the coordinated planning and delivery of mobile telecommunications infrastructure (also referred to as telecommunications facilities) for new communities in NSW.

Recommended approaches in this Guide will facilitate the planning for mobile digital connectivity as part of the precinct master-planning and development approval process of new communities. These approaches will assist developers and Mobile Network Operators (MNOs) in unlocking opportunities for efficiency in delivering digital equity for new communities.

1.1 Smart infrastructure planning in new communities: Western Sydney 5G Trial

This Guide is a result of learnings from the Western Sydney 5G Trial (the Trial), a Western Sydney City Deal digital commitment (C5). The trial received co-contribution of its funding through the Smart Places Acceleration Program, a special reservation of the NSW Government's Digital Restart Fund. The trial tested new ways that Mobile Network Operators (MNOs), developers and local governments could work together to provide mobile digital connectivity for new communities. It allowed all parties to test the benefits of this approach, including identifying where benefits can be realised through partnership and active information sharing and feedback.

The key goals of the Trial were to:

- Bring together stakeholders in three greenfield developments in Western Sydney to facilitate the installation of telecommunications infrastructure, particularly 5G, in the same way other essential services (electricity, water and gas) are provided in new communities.
- Bring innovation to each MNO's standard technology roll-out process.
- Identify, by collaboration, opportunities to reduce typical timeframes for site selection, site acquisition, design, planning approvals, and construction of a telecommunications facility.

The following key learnings from the Trial have informed the preparation of this document:

- Mobile telecommunications planning typically occurs after a new community has been constructed and is occupied, delaying the provision of mobile digital connectivity.
- State and local authorities are seeking further guidance to inform coordinated telecommunications planning to provide mobile digital connectivity in new communities that is available when residents move in.
- Further guidance is required on who is responsible for the planning and delivery of mobile digital connectivity in new communities.

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- Key stakeholders (including NSW Government, local government, developers and MNOs) have limited awareness of the detail and timing requirements of other stakeholders, leading to difficulty in effectively engaging and collaborating to achieve coordinated outcomes.
- Further guidance is required on preparing local planning controls that are consistent with the provisions of the *Telco Act* and the *State and Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP), and appropriate conditions of consent within the powers of the EP&A Act.
- MNOs have struggled or been unable to collaborate with developers to coordinate site planning and site acquisition to support mobile telecommunications infrastructure in new communities.
- Developers (typically being the landowner developing new communities) are a critical stakeholder for the coordination of land use planning and mobile telecommunications infrastructure planning and need to be central to discussions with MNOs as early as possible. However, there is limited experience on how developers and MNOs can collaborate to accelerate the mutually desired outcome of digitally connected places.

1.2 Guiding principles

This Guide's approach and desired outcomes for mobile telecommunications planning in new communities is underpinned by the following principles:

1. Developers and practitioners understand mobile digital connectivity baseline and future demand in new communities.
2. Encourage early engagement between developers and Mobile Network Operators (MNOs) as part of the planning process to accommodate mobile telecommunications infrastructure where required to provide equitable mobile digital connectivity in new communities.
3. Identify potential sites and the approach for mobile telecommunications infrastructure early in the planning process for new communities.
4. Incorporate technical guidance for enabling telecommunications infrastructure (fixed and mobile) in development control plans (DCPs), including conduits, pits, poles and connected places.
5. Prepare place owners for managing digital infrastructure assets.

This Guide also builds on the *NSW Telecommunications Facilities Guideline, Including Broadband (NSW Telco Guideline)*. This NSW telecommunications policy framework contains five key principles for telecommunications development, which are included in this Guide.

1.3 Telecommunications planning context

Planning for mobile telecommunications in new communities in NSW includes multiple stakeholders. Table 1 identifies the role of key stakeholders and how this Guide can be used to facilitate good planning outcomes.

Table 1. Key stakeholders of mobile telecommunications planning

Key stakeholders	Role	Benefits of this Guide
NSW Government	To create pathways to a better-connected NSW through state policies, strategies, funding, and engagement. The NSW Government also: • Plays a role in the identification of new precincts released for planning new communities. • Can often be the lead stakeholder in the master-planning process for new precincts. • Can be responsible for assessing State significant development applications submitted by a property developer, where applicable.	Authorities can use this Guide as guidance for facilitating good planning outcomes that ensure minimum standards of digital connectivity in new communities, alongside the NSW Telco Guideline.
Local government	Responsible for strategic planning to meet the needs of the community within the local government authority and assess local development applications submitted by a property developer, where applicable. This can include assessing development applications for telecommunications infrastructure. Where telecommunications facilities and infrastructure are delivered in community lands (such as open space), local government’s property portfolio managers become a key stakeholder within local government – responsible for leasing arrangements and how the assets will be managed on the land.	

Key stakeholders	Role	Benefits of this Guide
Developer	Often the proponent in the master-planning process and construction of new communities. The construction process will typically include the construction of new infrastructure such as roads, utilities and passive infrastructure, but exclude mobile telecommunications digital infrastructure.	New community developers and telecommunications infrastructure developers can use this Guide to identify opportunities to collaborate on identifying siting and design of digital infrastructure that will provide equitable connectivity for new communities.
Mobile Network Operator	Also known as mobile carriers, MNOs provide telecommunication services to consumers, including the delivery and operation of digital infrastructure and passive infrastructure.	
Community	The community includes anyone who lives, works or visits an area. They are the customers and users of digital services provided by mobile carriers.	Provide clarity to new communities (owners and occupiers) on the process behind the deployment of telecommunications infrastructure, and the avenues for participating in consultation processes set out in the NSW planning system.

For phases of planning for mobile telecommunications infrastructure that often occur sequentially, rather than in parallel, different key stakeholders are involved:

- For new communities that require release and rezoning of land through to approval and construction, planning processes are complex and span multiple years from the inception of the process, as shown in Figure 1
- For mobile telecommunications infrastructure, planning processes can also take time, as shown in Figure 3. This means that there can be a lag between when a new community is occupied and when mobile coverage is available.

Figure 1. Typical planning process for construction and use of land in new communities

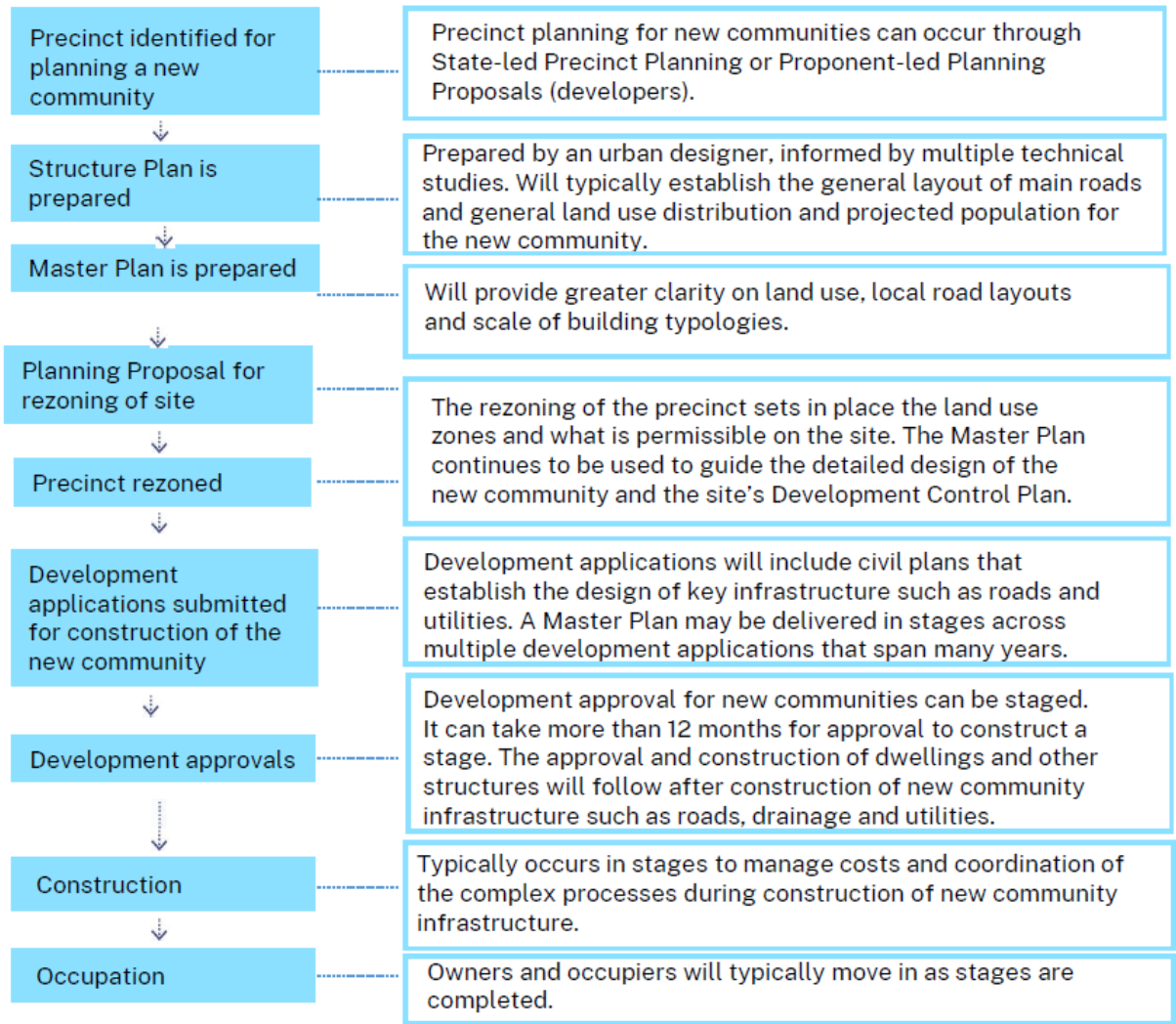
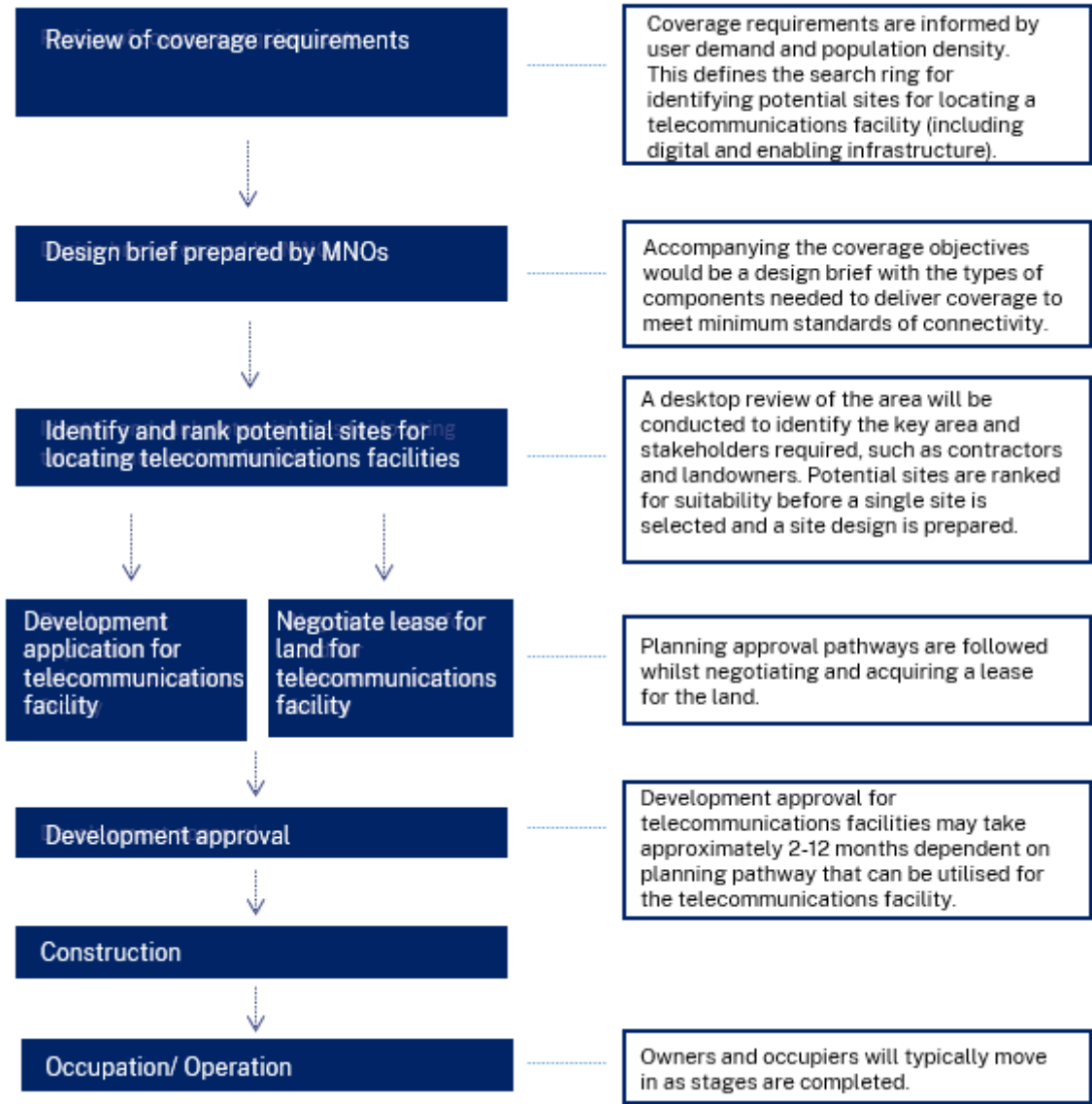


Figure 2. Typical planning processes for mobile telecommunications infrastructure delivery by MNOs



At the time of preparing this Guide, there is no existing framework guiding how MNOs coordinate site acquisition and coverage in new communities to locate mobile telecommunications infrastructure. This can lead to uncertainty regarding timings for the provision of mobile digital connectivity in new communities in NSW.

This Guide outlines how the two processes identified in Figure 2 and Figure 3 can be merged within the structure of the NSW planning system. This will allow mobile telecommunications infrastructure planning to occur as part of the master-planning and development application process for new communities. It is envisioned this approach can be achieved to complement the provisions and processes of the EP&A Act.

1.4 Importance of integrated mobile telecommunications planning in new communities

Mobile digital connectivity is a well-established daily need for the average Australian, contributing to the social and economic functions of cities and communities. In the same way as there is a need to address mobile black spots in regional areas and peri-urban fringes, the NSW Government recognises the need for coordinated planning of telecommunications infrastructure to provide quality mobile digital connectivity for new communities.

There are compelling reasons for the coordinated planning of this infrastructure to enable its timely provision, including:

- Mobile connectivity is a critical need for communities:
 - According to the Australian Communications and Media Authority (ACMA 2023), mobile phone calls have long been the most widely used way to communicate, with 97 per cent of Australian adults, aged 18 and over, using mobile phones to make calls in 2023. This is closely followed by 96 per cent of adults using mobile phones for text messaging.
 - Current estimates by Telstra and ACMA are that 80 per cent of emergency calls originate from a mobile phone. Emergency services operations and public emergency notifications (such as in extreme weather events) are also heavily reliant on mobile digital connectivity. This makes the provision of mobile digital connectivity critical to public safety and resilient communities.
 - Mobile digital connectivity complements available fixed digital connectivity. In this way, it plays a significant role in economic activity through online services for businesses and the community including home-based businesses, EFTPOS terminals, digital banking, the app economy and navigation.
- The delivery of mobile telecommunications infrastructure must become accelerated and more efficient, through:
 - A clearer pathway for mobile network operators to identify high-quality site and design outcomes for digital infrastructure that are coordinated with master-plan layouts. This may potentially use new buildings for the location of digital infrastructure and provision of passive infrastructure, including fibre, conduits and similar as part of civil works during development construction.
 - Coordinated planning and delivery of telecommunications infrastructure with wider civil works designs for master planning and approvals. This would enable suitable sizing and co-location of passive infrastructure, meaning infrastructure can be delivered with lower costs and minimal disruption to public amenity.
 - Enabling more integrated design outcomes for telecommunications infrastructure to protect visual amenity.
 - Providing clarity on the relevant stakeholders and processes for effective collaboration between businesses and government for the coordinated delivery of mobile telecommunications infrastructure.
- The provision of telecommunications infrastructure provides the backbone infrastructure for smart place outcomes, including fibre and 5G. It also future-proofs access for new communities to emerging technologies reliant on mobile digital connectivity.

1.5 Planning framework for telecommunications infrastructure

There are three layers of governmental legislation and policy related to establishing telecommunications infrastructure. The planning framework for telecommunications is a top-down hierarchy comprising federal, state and local policies to facilitate the delivery of mobile telecommunications infrastructure.

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At each level of government, there is legislation, policies and guidance that are statutory or non-statutory. Statutory instruments are made under the authority of, and enforced under, an act of parliament (for example, the Telco Act or the EP&A Act). Non-statutory regulations (for example, Development Control Plans (DCPs)) are subordinate to statutory instruments and not enforced under an act of parliament. The statutory and non-statutory documents shown in Table 2 are summarised further in Appendix A.

While DCPs are non-statutory documents, they are prepared by local governments to guide development outcomes and are considered during development assessment. Due to the local nature of DCPs, the content and structure of DCPs can vary across local government areas. However, it is important that development controls are consistent with statutory controls. For guidance, exemplar DCP controls for telecommunications development are provided in Appendix B.

Table 2. Planning framework for telecommunications infrastructure

Level of govt	Statutory	Non-statutory (strategy, policy and guidance documents)
Commonwealth		
	Telecommunications Act 1997	Telecommunications in New Developments (TIND Policy)
	Telecommunications (Low-impact Facilities) Determination 2018	
	Telecommunications Code of Practice 2021	
State		
	Environmental Planning and Assessment Act 1979	NSW Connectivity Strategy
	State Environmental Planning Policy (Transport and Infrastructure) 2021	SmartNSW Roadmap 2022-2027
		NSW Telecommunications Facilities Guideline Including Broadband
		Planning for mobile telecommunications in new communities (this document)
Local		
	Local Environmental Plans	Development Control Plans

2. Siting of telecommunication infrastructure in new communities

The TIND policy promotes early planning for mobile telecommunications as best practice. However, current practice in NSW for delivering telecommunication infrastructure into a new master-planned precinct is to only plan, design and instal fibre for fixed broadband. This may only be considered during preparation of a development application.

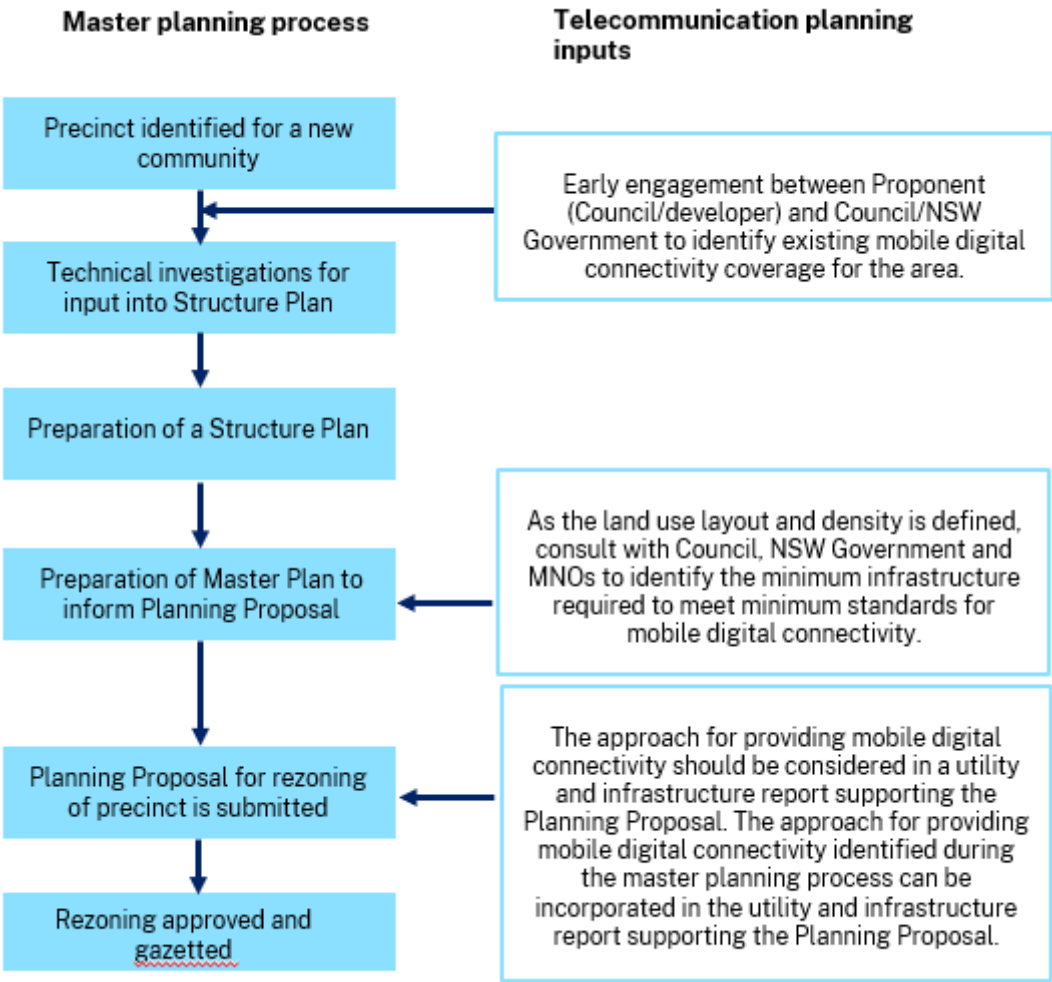
Mobile telecommunication infrastructure has typically been excluded from the master-planning, planning approval and construction phases of a new community. This has required MNOs to plan and install mobile telecommunications infrastructure at a later stage. This approach within the NSW planning system has missed the opportunity for coordinated planning to enable mobile digital connectivity to be ready for the first residents moving into a new community.

To enable this mobile digital connectivity before the residents move in, it is recommended that mobile telecommunications planning is considered early in the master-planning process. This should occur with the land use planning, as land use distribution, density and topography are key determining factors (see Figure 3). The planning and design of mobile telecommunications infrastructure should also consider the future needs of the community and the growing demand for mobile bandwidth and coverage capacity. This is necessary, as it can have design implications on the siting and scale of mobile telecommunications infrastructure, which should be understood well before the first development application for civil works is being prepared.

Telecommunications services are one of many services to be considered during the master-planning phases. A considered and coordinated approach regarding not only telecommunications services, but other essential services is important, as often all services are competing for space on public or community land.

While the provision of essential services is of high importance, the visual amenity of new communities is also of great importance. Good quality and coordinated design is critical to delivering high-quality places. This includes deciding where to locate services (and telecommunications infrastructure) during the master-planning stage.

Figure 3. Recommended merging of master-planning and telecommunications inputs for new communities



2.1 Overview of telecommunications infrastructure

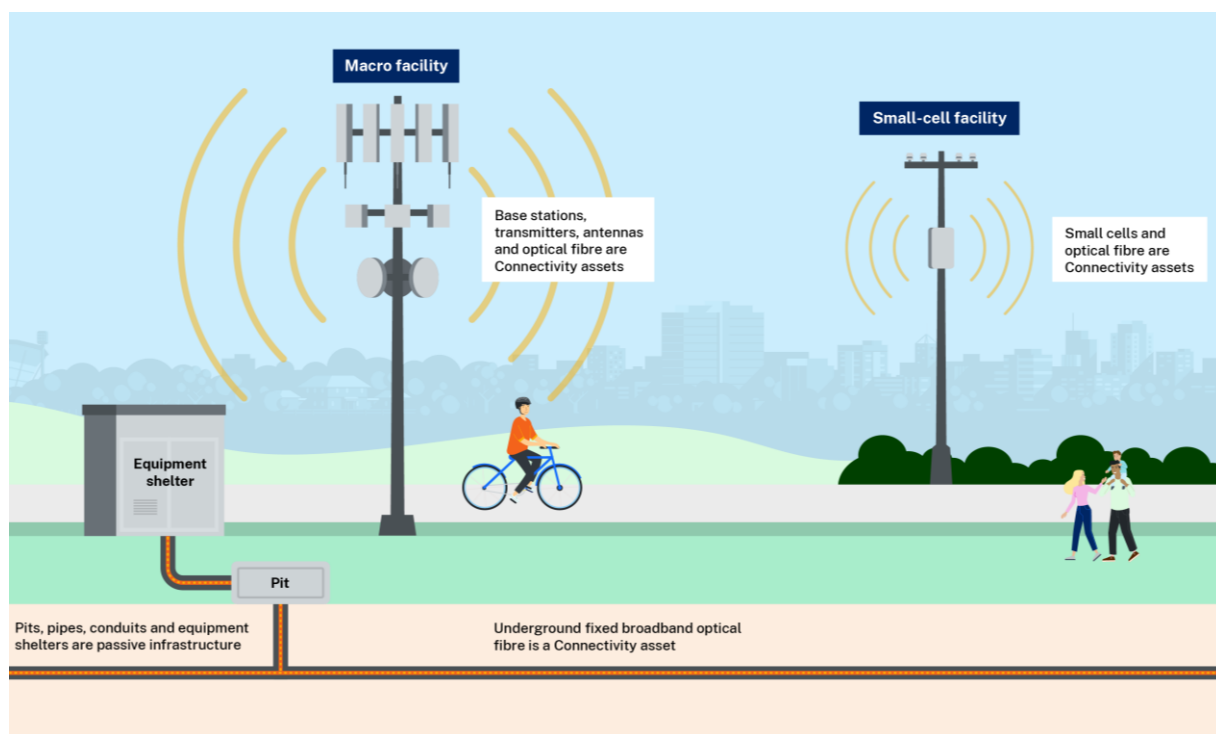
Digital infrastructure is the all-encompassing term for the interconnected physical and virtual (software) assets to support digital connectivity. Telecommunications infrastructure is one type of digital infrastructure. Likewise, mobile telecommunications infrastructure is one type of telecommunications infrastructure.

In NSW, telecommunications infrastructure is defined in the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as:

- 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.

To provide additional clarity in this Guide, the components of telecommunications infrastructure (as shown in Figure 4) are classified as either connectivity assets or passive infrastructure. These are explained in the following sections.

Figure 4. Telecommunications infrastructure



2.1.1 Connectivity assets

Connectivity assets are physical devices and equipment that support digital connectivity, including assets for mobile networks (4G, 5G, and 6G). They include antennas, dishes, cellular base stations, small cells, and optical fibre cables (broadband), and can also include the internet of things (IoT) and sensors to support smart places.

Mobile network operators use different solutions to achieve optimal coverage for customers. The two main types of connectivity assets currently used by MNOs are macro cells and small cells. Both are designed to send and receive signals from mobile devices using radiofrequency electromagnetic energy and work in similar ways, as follows:

- **Macro cells** are cellular mobile phone base stations that work by providing coverage over a large area. These signals can travel for kilometres. Signals emitted by macro cells may be impeded by physical barriers or vegetation. The signal will be blocked by large landforms, such as hills, resulting in coverage diminishing over distance. The strategic location of macro cells therefore needs to provide a 'line of sight' between facilities and be within range to provide coverage to users. Being outside the range of macro cells or in an area blocked by a landform will result in a coverage 'black spot'.
- **Small cells** can use the same frequency bands as macro cells or higher frequency bands for some 5G services. Where higher frequency bands are used, the signal covers a shorter distance and physical barriers, such as buildings or vegetation, can block signal. Due to the shorter distance coverage provided by small cells, they must be located closer to each other to provide coverage. As such, small cells are often mounted on lampposts and power poles.

Macro cells and small cells can also have diminished signals as the number of users of a cell increase (user density). As such, telecommunications infrastructure can require equipment upgrades to meet increased user demand in an area.

2.1.2 Passive infrastructure

Passive infrastructure is the physical infrastructure required to support and enable the positioning or conveying of connectivity assets (see Section 2.1.1) in places. This can include items such as poles (including smart poles and multi-function poles), towers, masts, equipment shelters, outdoor units (ODUs), as well as mounts, footings, pits, pipes, conduits, access ducts, cable trays and similar items in which optic fibre cables can be installed.

Poles and structures

Macro facilities (as shown in Figure 4) are typically located on large poles, masts or towers. This is to ensure the digital infrastructure has the elevation above physical barriers that is required to provide coverage to users. These structures are supported by other physical infrastructure, including the mounts the structures are positioned on for stability, and structures that contain other equipment and digital infrastructure for power and connectivity.

Small cells (as shown in Figure 4) can be located on existing street poles and the like. Cities are increasingly integrating digital technology into the built environment through the installation of multi-function poles (also referred to as smart poles) to enhance management of the built environment. A multi-function pole is an enhanced street pole with various technology features and attachments. Features can include LED street lights, CCTV, Wi-Fi, Internet of Things (IoT) sensors and charging facilities (including electric vehicle (EV) charging).

These multi-function poles require power and digital connectivity (broadband) to function, which also unlocks the opportunity for integrated 5G small-cell infrastructure to be installed within the structure. This allows for a more visually appealing deployment of small-cells compared to those mounted on a traditional street pole.

Standardising the way that multi-function poles and conventional street poles are installed, maintained, and upgraded, with reduced costs and operational complexity, is required. At a minimum, planning considerations include the design and use of a standard pole mount that provides power and network pathways to any type of pole. This would remove the need to run new electric wires or additional trenching that may disrupt the community. Providers and MNOs should work closely with local governments to find ways to reduce streetscape obstructions within active transport corridors and consolidate the number of poles needed within the public domain.

Pits, pipes and conduits

Digital connectivity relies upon broadband fibre inside passive infrastructure in the street that connects to premises and supports mobile networks (4G, 5G, 6G and future generations). The future digital connectivity uses and demand (bandwidth and speed) are in many cases undefined. New communities in greenfield master-planned areas have long-term planning horizons. Due to the expense of retro-fitting passive infrastructure, planning should consider longer-term requirements for digital connectivity. This would future-proof passive infrastructure capacity (including conduits, pits and pipes) and minimise expensive upgrading in the future.

As developers are responsible for the design and delivery of passive infrastructure in new communities, they are encouraged to design with future-proofed infrastructure in mind. Digital Infrastructure Requirements, available online in the Smart Places Playbook, provides technical guidance on embedding enabling digital infrastructure to support the future needs of the place. This includes items such as conduits, pits and pipes, and shared trenches in greenfield areas, that are all critical for supporting digital connectivity.

2.1.3 Electro-magnetic energy

Mobile phones communicate by transmitting radio waves within the electromagnetic spectrum, which are received by a network of nearby fixed antennas (base stations). Radiofrequency (RF) electromagnetic radiation (EMR) lies in the frequency range between 100 kilohertz (kHz) to 300 gigahertz (GHz). RF EMR is non-ionising radiation, meaning that it has insufficient energy to break chemical bonds or cause ionisation (remove electrons).¹

The Australian Government has a process to ensure Australians are safe from the possible health effects of exposure to electromagnetic energy (EME) and RF. EME and RF are regulated by two Australian Government agencies – the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the Australian Communications and Media Authority (ACMA). ARPANSA has developed a public health standard (Standard for Limiting Exposure to Radiofrequency Fields – 100 KHz to 300 GHz Radiation Protection Series S-1 (Rev. 1)) that sets limits for human exposure to EME and RF. The limits are set well below the level where adverse health effects are known to occur and include a wide safety margin to protect the public.

All telecommunications facilities operating in Australia have a predictive EME report that shows the levels of EME as a percentage against the ARPANSA standard. All telecommunications facilities have to, and do, comply with this standard by a significant margin.

As all facilities comply with the standards set by ARPANSA, there are no planning or technical requirements or legislation to support the creation of buffer zones from mobile base stations from certain land uses (such as residential or open space). This is because the standards required to construct telecommunications have a built-in precautionary approach and operate well within the safe range of frequencies required.

2.2 Site selection for telecommunications infrastructure during master planning

The sites selected for telecommunications infrastructure are an important consideration when planning mobile digital connectivity for new communities. Where and how mobile telecommunications infrastructure is located depends on its type (macro cells or micro cells).

Infrastructure, such as poles and antennas, can be seen as reducing the visual amenity of the public domain. This type of infrastructure by its nature is functional and needs to be as inconspicuous as possible, while also being located in all areas to provide equitable digital connectivity.

This can be achieved through locating and designing the infrastructure to provide multiple uses. An example is locating digital communications infrastructure on light poles or on structures already planned for an area. The second example would need to be supported by appropriate visual impact assessment and mitigation measures implemented at planning approval and construction. However, this may be challenging when planning for new communities where structures do not yet exist.

¹ | ARPANSA (2024), [Radiofrequency radiation](#), accessed May 2024.

2.2.1 Key stakeholder consultation to inform siting and design during master planning

The master-planning process is often relatively high level. It is then further defined through detailed design at the development application stage. A similar approach can be applied to mobile telecommunications planning inputs into the master-planning process.

At the master-plan stage, only a general understanding is required of whether the precinct has available mobile coverage, or if new mobile telecommunications infrastructure will need to be planned for. Establishing this position can be achieved through consultation between the potential stakeholders identified in Table 1.

After establishing that new mobile telecommunications infrastructure is required, a general location on the master plan can be identified for where it could be located*. The precise location can be defined further as the master plan is developed in collaboration with key stakeholders and the project transitions into the development approval process. Table 3 lists many of the key stakeholder questions related to siting of new telecommunications infrastructure that may be asked during the master planning and detailed design of a project.

*Note – While this is similar to preserving land for a public purpose that is enabled through Section 3.14 of the EP&A Act, it is acknowledged that telecommunications facilities are not typically considered to be a public purpose. The intent of recording possible locations is to inform of the need for telecommunications infrastructure.

2.2.2 Land use consideration

Although mobile telecommunications infrastructure is permissible in all land use zones under the T&I SEPP, best practice planning includes consideration of land use compatibility. It is recommended that the siting and design of mobile telecommunications infrastructure considers the following principles:

- Where possible, while still achieving equitable digital connectivity, prioritise locating mobile telecommunications infrastructure within locations with the greatest land use compatibility.
- Mobile telecommunications infrastructure is more compatible with industrial land uses than employment land uses.
- Mobile telecommunications infrastructure is more compatible with employment land uses than residential land uses.
- Where practical, co-locate mobile telecommunications infrastructure to other structures, instead of building new passive infrastructure. However, co-locating mobile telecommunications infrastructure to structures in public open space and on local government assets will require close liaison with local governments to maintain community amenity, establish a plan of management, and negotiate commercial leasing arrangements.

Table 3. Siting selection considerations

What do local governments want to know?	What do MNOs want to know?	What do developers want to know?
Land uses: - Where is the most appropriate location for infrastructure (noting it is permissible in all land use zones)? - Would the infrastructure impact the functionality or amenity of the site context? - Note – Local governments often prefer telecommunications infrastructure to not be located in public open space or co-located on their assets unless designed for this purpose.	Land uses: - What is the land use distribution and population density? - Infrastructure needs to be located close to users and population density drives the scale of infrastructure required. - Note – MNOs often see co-location of connectivity assets on structures (such as flood lights) as a preferred outcome due to its 'reduced impact'.	Land uses: - Where does the infrastructure sit in relation to land uses? - Does the siting of the infrastructure fit in with the proposed land use? - How could the infrastructure impact on land value?
Built form: - Is the infrastructure designed to be visually acceptable? - Does the infrastructure comply with the relevant planning requirements, including the NSW Telco Guideline, any local government DCPs, relevant technical manuals and guidelines, or standards requirements?	Built form: - Where will different building types be located that could impede the signal? - Buildings that could impede the signal would require more infrastructure and/or digital infrastructure located nearby on taller structures.	Built form: - Is the location of taller buildings and structures suitable to host infrastructure? - Could the infrastructure effect visual aesthetics? - How is the infrastructure designed to be sympathetic to the proposed built form to reduce any impact on amenity and land value?

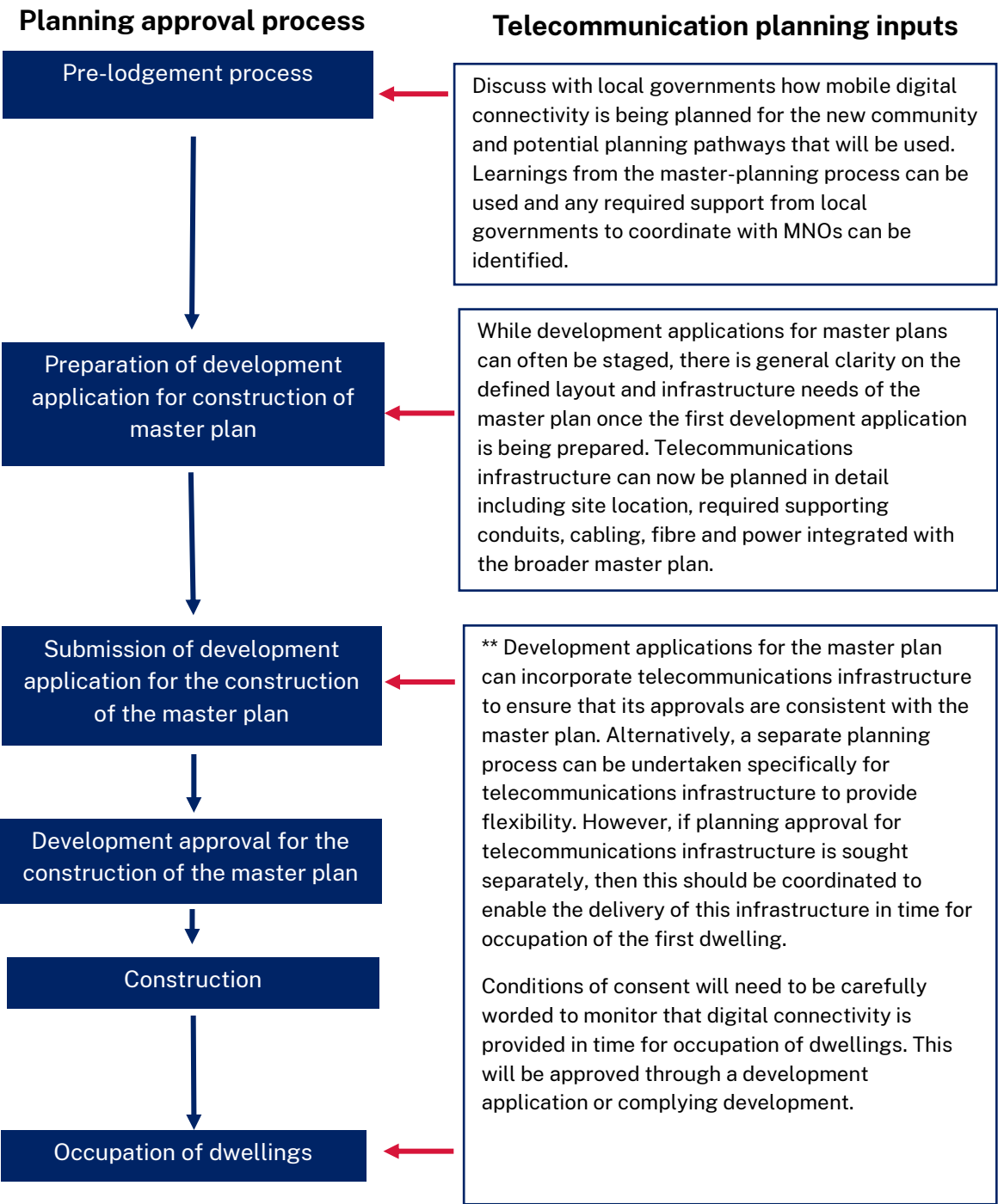
What do local governments want to know?	What do MNOs want to know?	What do developers want to know?
Location of service delivery infrastructure: - Is there existing mobile telecommunications within a one kilometre radius of the precinct? - Have viable opportunities to consolidate/co-locate infrastructure been pursued/investigated? - What type of existing mobile telecommunications are available (that is 4G, 5G or wireless NBN)? - Will there be demand for new or upgraded mobile telecommunications infrastructure to support the new community?	Location of service delivery infrastructure: - How is the precinct's power and fibre designed to support digital infrastructure? - Is there enough capacity to integrate digital infrastructure without costly retrofitting?	Location service delivery infrastructure: - Where in the structure plan is it best to install digital infrastructure? - How much land is required for digital infrastructure? - How to work with MNOs to achieve an optimal outcome?
Topography: Will new infrastructure cause significant visual impacts?	Topography: How will the site topography affect ability for line-of-site connectivity from antennas, constructability of infrastructure and any impediments to RF signals from terrain and vegetation?	Topography and heights: - How tall will infrastructure need to be and at what elevation? - How could this affect views and visual amenity?

3. Telecommunications planning pathways in new communities

Learnings from the Trial identified that mobile telecommunications planning is best undertaken as part of detailed design and planning of civil works for new communities. It is at this time that there is an opportunity for coordinated design with earthworks, roads and underground utility infrastructure.

This section provides guidance on planning processes, pathways, required details and consultation requirements for the planning approval and physical installation of mobile telecommunications infrastructure. Figure 5 identifies a best practice approach on how mobile telecommunications planning is incorporated into the planning approval process for construction of a master plan.

Figure 5. Merging of planning approval process and telecommunications inputs for new communities

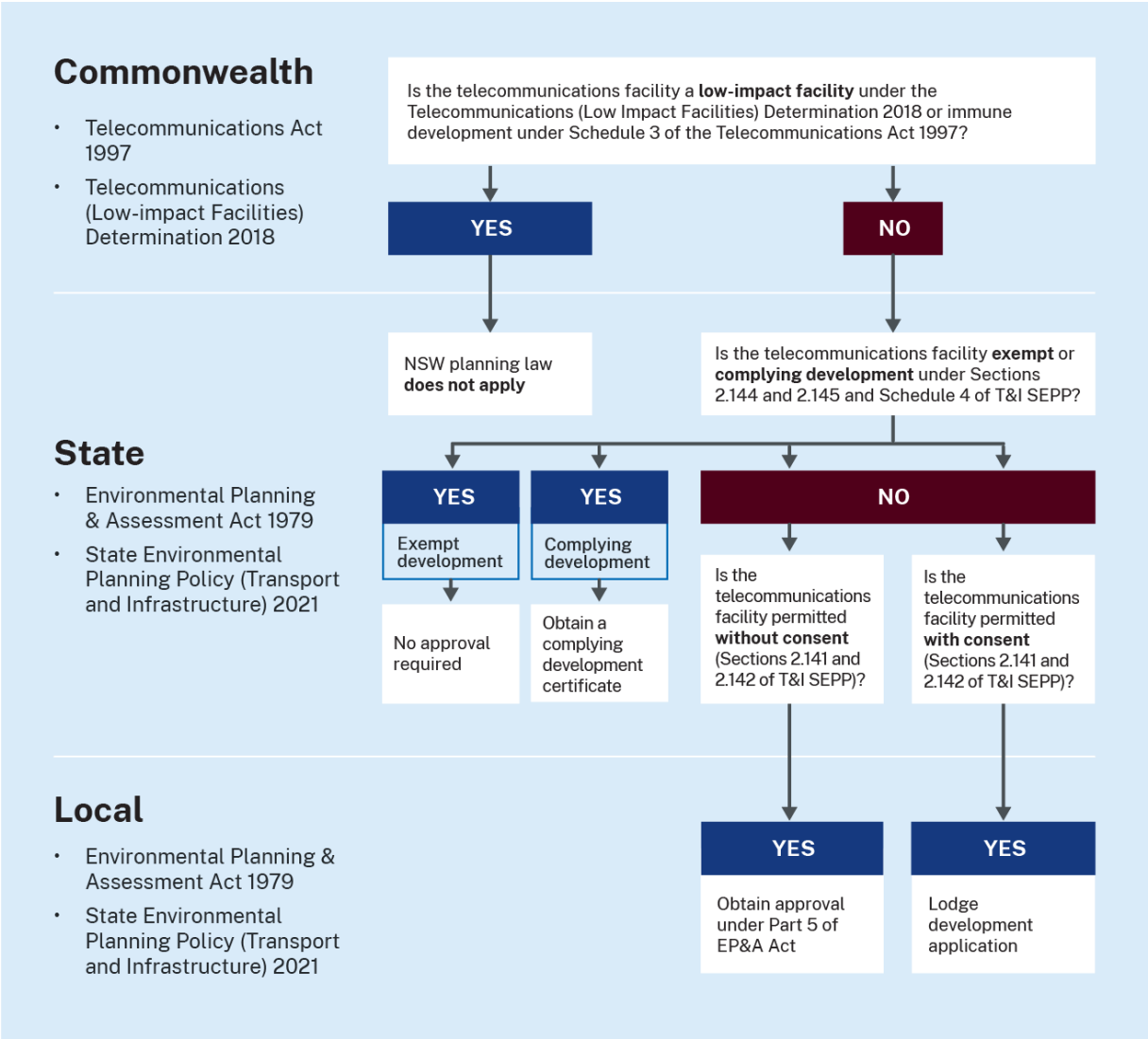


*** The Western Sydney Planning Partnership supports the principle of streamlining approvals. It recommends further analysis should be undertaken of the type of telecommunication infrastructure that would typically be provided as part of development (that is, infrastructure to service lots) and new telecommunication facilities (such as towers) to service a precinct. This will provide further guidance to local governments, developers and service providers on roles and responsibilities, and opportunities for greater consultation and amendments to local planning controls (such as DCPs), as required.*

3.1 Planning pathway options

The planning process outlined has various interactions with the Telco Act and the EP&A Act through the T&I SEPP. The planning process and pathways for telecommunications infrastructure development in NSW are outlined in Figure 6, which has been modified from the NSW Telco Guideline. Figure 6 outlines the steps for obtaining planning consent for telecommunications infrastructure (including mobile telecommunications infrastructure) in NSW.

Figure 6. Steps required to determine planning approvals in NSW for telecommunications infrastructure and facilities



In respect to this Guide, the steps required to obtain planning consent, although using the same Commonwealth and NSW planning pathways, have different recommended steps to integrate effective collaboration between all stakeholders during assessment of development applications submitted for the construction of the master plan. This is outlined in further detail in this section, along with the process for collaboration between MNOs, developers, and state and local governments.

3.1.1 Commonwealth planning pathway – Telecommunications Act 1997

A potential expedited pathway exists for using the Telco Act to install telecommunications infrastructure (low-impact facilities) in new communities. However, this pathway is only possible if the developer for the new community plans, builds and owns the passive infrastructure for the master-planned area. MNOs would then be able to coordinate with the developer (following development approval and during construction) to use the provisions of the Telco Act through the *Telecommunications (Low-impact Facilities) Determinations 2018* (LIFD), to install the digital infrastructure.

The advantage of this process is it is streamlined and avoids the need for any further amendments to development applications, such as for any additional antennas or cables. This process would also require MNOs to fulfil their consultation obligation set within the *Mobile Phone Base Station Deployment Industry Code (C564:2020)* – an eight-week process for a new facility.

This approach would still require planning approval for the construction of the passive infrastructure. A development application for its construction would need to clearly outline the long-term objective of how it would facilitate digital connectivity for the future community. This would need to be understood by both the consent authority and community,

Any proposed passive infrastructure could be part of a standalone development application prepared by the developer of the master plan, or be incorporated into a development application for broader civil works to facilitate the construction of the master plan.

Advantage	Limitation
The LIFD is a streamlined pathway for delivering digital infrastructure.	Only applicable for low impact facilities and does not facilitate the construction of new passive infrastructure.

3.1.2 NSW planning pathway – State Environmental Planning Policy (Transport and Infrastructure) 2021

The T&I SEPP contains provisions to enable development of telecommunications infrastructure. These pathways are summarised below.

Section 2.144 Exempt development

Section 2.144 allows development for the purposes of telecommunications to be carried out by or on behalf of any person on land as exempt development if it meets the development standards as set out in the Schedule 4 of the T&I SEPP. This exempt development broadly aligns with provisions allowed under the LIFD. This pathway allows more flexibility for installations in heritage conservation areas and on heritage-listed items; however, MNOs cannot access land or serve a land access activity notice (LAAN) under this State legislation. The relevance of this pathway to new communities is that it allows MNOs and developers a pathway to make alterations to certain elements (such as antennas placement on passive infrastructure) without requiring additional amendments and modifications to any approved development application.

Advantage	Limitation
- Allows for additional amendments and modifications to connectivity assets without requiring planning approval. - Provides greater flexibility for installations of connectivity assets in conservation areas and on heritage-listed items compared to provisions under the Commonwealth planning pathway.	MNOs cannot access land or serve a land access activity notice (LAAN). Consent from a landowner is required.

Section 2.145 Complying development

Section 2.145 allows development for the purposes of telecommunications to be carried out by or on behalf of any person on land as complying development, if it meets the development standards as set out in the Schedule 4 of the T&I SEPP.

Section 2.145 allows for telecommunications infrastructure of greater physical significance, such as allowing new towers in certain land use zones, in particular, new towers in industrial and rural zones. This type of development requires a complying development certificate (CDC) signed-off by an accredited certifier.

As for exempt developments, the relevance to this in new communities is that it allows MNOs and developers a pathway to make alterations to additional elements (including passive infrastructure) without requiring additional amendments and modifications to any approved development application.

Advantage	Limitation
- A streamlined pathway for constructing telecommunications infrastructure without planning approval. - Allows for additional amendments and modifications to connectivity assets without requiring planning approval. - Provides greater flexibility for installations of telecommunications infrastructure in conservation areas and on heritage-listed items compared to provisions under the Commonwealth planning pathway.	MNOs cannot access land or serve a land access activity notice (LAAN). Consent from a landowner is required.

Section 2.141 Development permitted without consent

Under section 2.141 public authorities may carry out development for the purposes of telecommunications infrastructure without consent on any land. This pathway could be used by a local government or other public authority in a new development to develop passive infrastructure. The public authority could then subsequently allow MNOs to install connectivity assets under the Telco Act (as a low-impact facility) or as exempt or complying development under the T&I SEPP. It is anticipated that this could occur in cases where local government is the developer of utilities, such as light poles, and has an agreement with MNOs as part of the process (see Figure 5).

Advantage	Limitation
A streamlined pathway for constructing telecommunications infrastructure without approval.	Only applicable to local governments and other public authorities, and therefore requires coordination between the local government, developer and MNOs.

Section 2.143 Development permitted with consent

If proposed telecommunications infrastructure cannot utilise the provisions of the Telco Act or cannot be categorised as exempt or complying development under the subsequent sections of the T&I SEPP, then development consent must be sought through a development application under Part 4 of the EP&A Act.

Importantly, development for the purposes of telecommunications infrastructure may be carried out by any person with consent on any land, overriding any land use permissibility within a LEP. Notwithstanding this provision to allow telecommunications infrastructure development in any zone, the siting guidance in Section 2.2 of this Guide can be used to optimise its location.

3.2 Development application requirements

As shown in the process in Figure 5, planning approvals for most telecommunications infrastructure for new communities can be incorporated into the development application for the construction of the master-planned development.

This section provides direction on the process to apply for consent, and the likely documentation requirements for telecommunications infrastructure. Note that many of these matters will also be addressed when applying for and obtaining the approval of the master plan itself.

3.2.1 Pre-application consultation

Pre-application consultation should take place between local government and developer (as shown in Figure 5). There would be benefits from MNOs also being party to this meeting (where applicable). The consultation should focus on the proposed telecommunications infrastructure. These initial discussions have the potential to improve the site selection process, discuss design parameters, mobile coverage objectives, and the efficiency and effectiveness of the planning approval process.

It is recommended that local government provides a single point of contact for developers and MNOs, to encourage and facilitate ongoing consultation. The identified local government point of contact can then disseminate the information and involve its officers as required.

Learnings from the Trial indicate that consultation will require a strategy for consistent messaging. This is best achieved through each party allowing executive level awareness and understanding of the proposed mobile telecommunications infrastructure. This will enable the development of goodwill and collaboration between all parties in achieving the same objective of improved mobile digital connectivity. Responsiveness of all parties will benefit the consultation and the approval process as a whole.

Community or other stakeholder engagement will take place separately and, usually, later in the approval process, and is not covered in detail as part of this Guide.

3.2.2 Application requirements

Providing the correct information is crucial to assessing any application and to good decision-making. Pre-application consultation with local government should include confirming what information is required for a specific project.

An application should reflect the principles set out in the NSW Telco Guideline. Table 4 provides a guide to what information may be required for an application.

3.2.3 Community stakeholder engagement

Local government should consider and respond to any submissions that it receives as a result of statutory consultation undertaken during a development application assessment under Section 4.15 of the EP&A Act.

Table 4. Development application requirements in accordance with the NSW Telco Guideline

Issue	Comment
Mandatory requirements in accordance with the NSW Telco Guideline	
Technology hazard	MNOs operate within the operational standards set by the ACMA and ARPANSA (see Section 2.1.3). MNOs must provide an environmental EME report in the prescribed ARPANSA format that shows the maximum predicted EME levels as a percentage of the maximum exposure limit under the operational standard.
Visual character	Provide an assessment of the potential visual impacts on the surrounding area caused by the proposed telecommunications infrastructure. Mitigation measures, such as landscape planting or screening should be addressed as required and photomontages showing the proposal from different important viewpoints, vistas and views to and from the site should be shown. This is to allow the assessment of the visual impacts of any proposal on the surrounding locality.
Planning considerations for a development application dependent on site context	
Aboriginal heritage	A due diligence assessment should be undertaken to determine whether the works would impact on any Aboriginal objects or whether an Aboriginal Heritage Impact Permit (AHIP) is required. This should be undertaken in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW.
Access, transport and traffic	Outline considerations taken of access to the site of the telecommunications facility, as well as potential traffic impacts during construction and operation.
Air bases, airport and aerodrome operations	Telecommunications are by their nature tall structures and consultation with aerodrome operators, the Civil Aviation Safety Authority and/or the Department of Defence may be required if near air bases, airports and aerodromes or within flight paths.

Issue	Comment
Biodiversity	Provide an assessment of any impacts associated with potential removal of native vegetation, in accordance with the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) and the <i>NSW Biodiversity Conservation Act 2016</i> (BC Act).
Economic and social	Provide an explanation of how the mobile telecommunications facility would be of economic and social benefit to the local area.
Flooding	Provide a flood certificate and hydrology report, to ensure resilience and mitigate the impacts of any planned mobile telecommunications infrastructure.
Heritage and conservation	There are exemptions that are often used for heritage matters contained within the T&I SEPP and LEPs. However, this is an important consideration, particularly around visual impacts to heritage items. A Heritage Impact Statement may be required to support any development application that outlines mitigation of impacts if the site adjoins a local or State heritage item.
Noise and vibration	Provide an assessment of potential noise impacts associated with the construction and operation of the mobile telecommunications facility.
Public safety/hazards	If the site of is mapped as bushfire prone land, then a bushfire risk/protection assessment may be required. If the site is in a mine subsidence district, approval from Subsidence Advisory NSW may be required.
Trees	Existing trees impacted by a proposed facility (by pruning, lopping or removal, by an impact on the root system or any other means) must be identified on a plan and any potential impact assessed by a suitably qualified arborist.
Waste	While an operational mobile telecommunications facility does not produce any waste, a construction waste management plan may be required. However, unless a site is of particular sensitivity, this can usually be conditioned to be provided prior to the issue of a construction certificate.

4. Coordinated telecommunications delivery in new communities

4.1 Determination

Appendix B of the NSW Telco Guideline contains recommended standard conditions of consent for telecommunications infrastructure. Conditions may include, but are not restricted to, those detailed in Table 5.

Table 5. Potential conditions of consent related to telecommunications infrastructure delivery

Condition	Comments and timing
Pre- and post-installation EME testing	Testing undertaken at 6 and 12 months after operation to confirm facility complies with ARPANA standard.
Airspace requirements	As required by site conditions. The site may need to be registered onto the CASA/Department of Defence tall structures register. To be submitted prior to construction certificate.
The provision and approval of sediment and erosion control plans	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
A landscape plan for the provision of landscaping	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
A landscape management plan for the protection of existing vegetation during construction	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
A public domain plan to indicate the location of services in proximity to all proposed (and existing) public domain elements (including landscaping)	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
Requirements upon the location or discovery of Aboriginal artefacts	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
A schedule of external building materials and colours	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
Construction waste management and minimisation	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.
Construction Environmental Management Plan	As required by site conditions. To be submitted and endorsed prior to construction certificate being issued.

4.2 Post-determination requirements

For any digital infrastructure that is approved as part of the subdivision development application, once the required approvals are in place MNOs will be required to comply with the consent conditions. They will need to provide the necessary documentation to the determining authority (state or local government) for endorsement of conditions. Proof of this is required to be submitted to the designated building certifier as part of the subdivision or construction certificate application. (Note: This does not apply to infrastructure approved under Commonwealth legislation or via exempt and complying development under the T&I SEPP).

It is important to be aware of these requirements during the development application phase to avoid modifications to pre-existing approvals.

4.2.1 Digital connectivity

Construction mobile digital connectivity (temporary facilities)

It is important for construction worker safety and efficiency that adequate coverage exists on site during the construction process.

It may not be practical for the telecommunications infrastructure to be installed prior to any other works on site. However, there are provisions within Part 6A of the LIFD and Item 17 (b) for MNOs 'to provide service or coverage during the construction or installation of a replacement telecommunications facility' of the T&I SEPP. Noting that construction will include the telecommunication infrastructure, once these are constructed and operational the temporary facilities must be removed within 28 days. The placement of these during construction should be factored into planning, with the developer and MNOs advising local government of the placement and operational dates prior to construction occurring.

Conditions of consent for mobile digital connectivity

Learnings from the Trial indicate that planning authorities intend to impose conditions of consent related to the provision of mobile digital connectivity in new communities. It is anticipated that following the process outlined in this Guide and streamlining the approvals as part of the wider subdivision will result in the development consent for the subdivision having conditions related to mobile telecommunications infrastructure.

When preparing conditions of consent, they should be valid, easy to implement, enforceable and easy to understand. The NSW Government has released a guide to writing conditions of consent and identifies quality conditions as those that:

- Are within the statutory power to be imposed.
- Are drafted in plain English using specific and clear language.
- Provide criteria that will ensure a clear and enforceable outcome.
- Do not duplicate information.
- Are relevant to the likely impact of the development.
- Are logically ordered according to development stages.
- Have considered the nexus (or direct relationship) between the condition of consent and the development for which consent has been granted.

When preparing conditions of consent related specifically to the approval of a mobile telecommunications facility, it is recommended that authors refer to model conditions provided in Appendix B of NSW Telco Guideline.

When preparing conditions of consent related to enabling the provision of mobile telecommunications infrastructure as part of a master plan, conditions of consent should relate to enabling actions and telecommunications planning outcomes identified during the master-planning process (as identified in Section 2).

As outlined in Section 3.2, early engagement and collaboration between MNOs and the developer will lead to the connectivity and coverage assessment being undertaken as part of the siting process. This can then be verified, and the condition endorsed through approaches such as predictive coverage plots, while noting that mobile digital connectivity can be affected by items such as:

- Point-in-time number of calls on a network.
- Population density.
- Signal impediment by buildings and elevations.

Drive testing should be undertaken by MNOs at a suitable time following occupation of a development (suggested to be after 6, 12 and 24 months). This is to consider if any adjustments or additional infrastructure is required, which may require additional approvals facilitated via the T&I SEPP.

4.2.2 Modifications to consents for digital infrastructure

During the construction process, there is often a requirement to make alterations to the configuration (such as antenna heights or sizes) and siting (such as geotechnical conditions necessitating a slight relocation of an asset). If a development consent for the whole development that contains the telecommunications facility requires amendments, it is not efficient to seek to amend the entire consent to modify for the telecommunications facility. As outlined in Sections 3.1.1 and 3.1.1 of this Guide, there are mechanisms under the LIFD and Clause 2.144 – Exempt Development and Clause 2.155 Complying Development of the T&I SEPP that would allow amendments to the approved facilities without needing to amend the approved development consent.

Once any modifications have been identified, MNOs and the developer will need to engage with the consent authority (local government) as soon as it practically possible to discuss the amendments. This will include why they are required and the preferred planning pathway to undertaking them.

MNOs and the developer should seek to take a top-down approach to identifying the preferred planning pathway. This will involve reviewing the LIFD in first instance and then exempt and complying development contained within the T&I SEPP. They should review this with the local government, who should also review using a top-down approach. These reviews should occur before any works are undertaken that are not aligned with the original development consent.

4.2.3 Plan of management (if located on community lands)

Local governments that are appointed as Crown Land Managers (CLMs) to manage dedicated or reserved Crown land are required to develop Plans of Management (PoM) for the land where it is classified as community land under the *Local Government Act 1993* (LG Act). This mostly happens for the management of public open space.

A PoM must be prepared and adopted in accordance with the provisions of Division 2 of Part 2 of Chapter 6 of the LG Act. In addition, the *Crown Lands Act 1989* (CL Act) defines additional requirements that must be included in the PoM.

Local government CLMs may amend an existing PoM (that is, a plan adopted under the CL Act) so that it applies to Crown reserves and, where appropriate, to the reserve's use. All applicable

provisions of the CLM Act and the LG Act must be addressed in the amended PoM. Table 6 provides an overview about how to prepare a draft PoM. For further information on how to prepare a PoM, refer to *Developing Plans of Management for community land Crown reserves: Guideline for Council Crown land managers*, prepared by the NSW Department of Planning and Environment.

How this applies to telecommunications planning?

There may be circumstances where the siting of telecommunications facilities and infrastructure is best placed in a public open space managed by local government (as a CLM). The telecommunications facility connectivity assets may be on a new structure or on an existing structure that may be owned and managed by local government (such as an existing light pole).

In this circumstance, local government may need to prepare a new PoM or amend an existing PoM. This will be to establish the key governance structure, objectives and performance targets for the use of the land, and in this case, authorise an MNO to use the land for the proposed use. The PoM provides certainty for local government and the MNO on the arrangements for a selected period, and will also contain leasing and licencing arrangements.

When following the four-step process for preparing (or amending) a PoM (see Table 6), consider the following:

- It is beneficial to all parties that local government and the MNOs consult and collaborate early to negotiate terms. This will allow the draft PoM to be prepared early and at the same time as the preparation of a development application. This can enable the draft PoM to be publicly exhibited close to, or in tandem with the public exhibition of the development application for any telecommunications facility. However, this process should not unreasonably delay the progression of a development application.
- The PoM should support realistic leasing and licencing arrangements.
- The PoM will likely reference design parameters that can be located within a DCP. However, care should be applied to ensure that any planning standards or design parameters related to telecommunications facilities are consistent with the provisions of the Telco Act. Refer to the NSW Telco Guideline for guidance on how to be consistent with the Telco Act.

Table 6. The four-step process for preparing a PoM

Step	Description
Step 1	Drafting the PoM • The PoM must meet all the minimum requirements outlined in section 36(3) of the LG Act and identify the owner of the land. • Any activities (including tenure or development) to be undertaken on the reserve must be expressly authorised in the PoM to be lawfully authorised. • Local government must obtain written advice from a qualified native title manager that the PoM and the activities under the PoM comply with the <i>Native Title Act 1993</i> (NT Act).

Step	Description
Step 2	Notifying the landowner and seeking the Minister's consent to adopt - The NSW Department of Crown Lands, as the landowner, is to be notified of the draft PoM prior to public exhibition of the PoM under s.391 of the LG Act. - Local government is also required to seek the Minister's written consent to adopt the draft PoM (under clause 708 of <i>Crown Lands Management Regulation 2018</i> (CLM Regulation)). The Minister's consent can be sought at the same time as notifying the landowners (NSW Department of Crown Lands) of the draft PoM. - Note: In certain circumstances, local government may only be provided with consent to proceed to public exhibition. Following public exhibition, local government will be required to re-submit the draft PoM for a final review, where the Minister's consent to adopt the draft PoM will be provided.
Step 3	Community consultation - Local governments are required to publicly notify and exhibit the PoM under section 38 of the LG Act. - Local governments are not required to hold a public hearing for Crown land under section 40A of the LG Act (exemption under clause 70A of the CLM Regulation).
Step 4	Adopting a PoM - If there are any significant changes to the draft PoM following public exhibition (or in circumstances when consent to adopt was not previously provided), local government must seek the Minister's consent to adopt the PoM. - A local government resolution of a PoM that covers Crown land should note that the PoM is adopted pursuant to section 40 of the LG Act in accordance with 3.23(6) of the CL Act. - When a local government has adopted the PoM, a copy of the adopted PoM and minutes of the resolution should be sent to the NSW Department of Crown Lands: council.clm@crowland.nsw.gov.au

Appendix A – Planning framework for telecommunications infrastructure

There are three layers of governmental legislation and policy related to establishing telecommunications infrastructure. The planning framework for telecommunications are to be considered in a top-down hierarchy from federal to state to local policies to facilitate the delivery of telecommunications infrastructure.

At each level of government, there is legislation, policy and guidance that is statutory or non-statutory. Statutory instruments are made under the authority of, and enforced under, an act of parliament (for example, the Telco Act or the EP&A Act). Non-statutory regulations are subordinate to statutory instruments and not enforced under an act of parliament (for example, Development Control Plans (DCPs)).

The following provides an overview of the statutory and non-statutory documents relevant to telecommunications planning.

1. Commonwealth statutory documents

1.1. Telecommunications Act 1997

The Telco Act came into effect on 1 July 1997 in response to the growing need for regulated and planned telecommunications systems. The Act restricts the rights of carriers to install telecommunications facilities under Australian Government authority. It allows for specified types of telecommunications facilities, commonly known as ‘low-impact facilities’.

1.2. Telecommunications (Low-impact Facilities) Determinations 2018 and 2021

Licensed telecommunications carriers are authorised by the Telco Act to install a limited range of facilities without seeking state, territory or local government planning approval. These low-impact facilities are specified in the *Telecommunications (Low-impact Facilities) Determination 2018* (LIFD) and the *Telecommunications (Low-impact Facilities) Amendment Determination 2021* (the Determination).

Low-impact facilities are generally one of the following two options:

- New telecommunication facilities mounted on top of roof tops and other structures.
- Additions and extensions to existing telecommunications facilities such as towers and poles.

Low-impact facilities include small antenna and dishes that are erected on existing towers or buildings and that are designed to be unobtrusive. Other types of low-impact facilities include underground and above-ground housing, underground cables, public payphones and temporary emergency facilities. The LIFD precludes certain types of facilities from being defined as ‘low-impact’.

When identifying a suitable location for a telecommunications facility, MNOs normally enter a tenure arrangement (lease/licence/access deed) with the landowner for the portion of land to be used by the proposed facility.

However, MNOs installing telecommunication facilities under the provisions of the LIFD have access rights that are not available when installing a facility under state and local legislation. Under the Telco Act, MNOs may serve a land access activity notice (LAAN) to enter upon land and exercise their powers:

- To inspect the land to determine whether the land is suitable for the MNOs purposes.
- To install a facility on the land.

- To maintain a facility that is situated on the land.

In exercising these powers, MNOs must comply with certain conditions, which as a minimum include doing as little damage as practicable, acting in accordance with good engineering practice, complying with recognised industry standards, and giving notice to the owner of land.

2. Commonwealth non-statutory documents

2.1. Telecommunications in new developments

The TIND policy, as opposed to regulation, came into effect on 1 September 2020. The policy update issued on 17 February 2024 expands the scope from the provision of fixed voice and broadband services to include mobile coverage. The TIND policy has the following two key objectives for the provision of telecommunications in new developments:

- To provide people moving into new developments with ready access to modern fixed and mobile telecommunications services, including broadband and voice.
- To support a competitive and sustainable market for the provision of such infrastructure by fostering efficiency, innovation and choice.

2.2. Telecommunications code of practice 2021

As guidance, the Telecommunications Code of Practice 2021 (Telco CoP) sets out in detail the MNOs obligations and responsibilities when installing low-impact facilities, inspecting land and maintaining facilities. The Telco CoP emphasises ‘best practice’ design, planning, and installation of facilities, compliance with industry standards, and minimisation of adverse impacts, particularly in terms of environmental and visual impacts.

3. New South Wales statutory documents

3.1. State Environmental Planning Policy (Transport and Infrastructure) 2021

The T&I SEPP contains specific provisions for ‘facilitating the efficient delivery of infrastructure by introducing consistent, updated planning provisions to improve efficiency and to provide greater certainty regarding the planning provisions applying to infrastructure projects across NSW’.

3.2. Local Environmental Plans

A Local Environmental Plan (LEP) is the principal statutory document for controlling development at a local government level. The zoning provisions in a LEP establish acceptable land uses and standards regulating the degree of development. The format of LEPs is standardised in NSW through the Standard Instrument – Principal Local Environmental Plan.

4. New South Wales non-statutory documents

4.1. NSW Connectivity Strategy

The NSW Telco Authority has developed the NSW Connectivity Strategy policy to align and optimise state-wide programs and opportunities to ensure modern, high-speed digital networks are available to all. The strategy aims to deliver meaningful, world-class, affordable, and resilient connectivity for citizens, businesses, emergency services and government. This connectivity is coordinated across government agencies and enables full participation in digital services and systems anywhere, anytime.

4.2. SmartNSW Roadmap 2022-2027

The SmartNSW Roadmap is a policy to deliver great places and outcomes for people using technology and data solutions. It includes fourteen actions for the NSW Government to make it easier for agencies, local governments and place makers across NSW to adopt smart solutions to improve their operations and services.

Acknowledging that opportunities for smart places are reliant on enabling outcomes such as a fundamental right to digital connectivity, the Roadmap identifies action EN5 – treat digital connectivity as a basic utility, in new developments and redeveloped areas. This Guide directly addresses action EN5 to ensure that areas with housing and employment have relevant digital infrastructure in place to meet their needs.

The T&I SEPP has specific planning and development requirements for 25 types of infrastructure or facilities, including telecommunications infrastructure under Division 21. In particular, the T&I SEPP overrides zoning controls within local environmental plans to allow telecommunication facilities to be permissible in all land use zones. This is to reflect the fact that wireless telecommunications coverage is required as much as other essential infrastructure across all land uses, although within the same provisions of guiding appropriate development to protect the amenity of local communities.

4.3. NSW Telecommunications Facilities Guideline Including Broadband

The NSW Telco Guideline was released in 2010 to support the provisions of the former State Environmental Planning Policy (Infrastructure) 2007 (repealed) and still applies under the T&I SEPP. It provides guidance on the statewide planning provisions and development controls for telecommunications facilities and broadband in NSW. The Guideline also provides information on the planning laws that relate to those telecommunications that are development permitted without consent (exempt development or under Part 5 of the EP&A Act) and development permitted with consent (development applications to be considered by the appropriate determining authority).

4.4. Development Control Plans

Development Control Plans (DCP) are non-statutory documents prepared by local governments to guide development outcomes. Many local governments in NSW have prepared development controls relating to telecommunications infrastructure, to manage potential siting, potential impact visual amenity and other development controls. Development controls and DCP formats vary across local government authorities and are non-statutory controls.

DCPs can be used to identify planned development standards and outcomes for digital connectivity and telecommunications infrastructure within new communities. Development standards can often identify technical notes and standards that are to be delivered, for example, the Technical Guidance: Digital Infrastructure Requirements released by the NSW Government.

Due to DCPs being non-statutory documents, any standards within a DCP cannot override or conflict with statutory documents or environmental planning instruments, including the Telco Act, T&I SEPP or LEPs.

Appendix B – Exemplar DCP controls related to telecommunications infrastructure

Prior to the NSW Telco Guideline and T&I SEPP, some local governments across NSW prepared DCPs to guide telecommunications development. These DCPs are generally superseded by the NSW Telco Guideline but are still in circulation for some local governments.

Below is a section of objectives taken from DCPs in NSW that still have relevance and can be used as examples to provide further guidance for telecommunications facilities development in new communities.

Telecommunications facility

A. Objectives

- (a) To apply a precautionary approach to the deployment of telecommunications infrastructure,
- (b) To encourage the provision of telecommunications facilities to provide access to meet current and future servicing needs for telecommunications for the general public and local communities.

B. Controls

B1. Servicing needs

1. Any telecommunications facility must include measures to restrict public access to the antenna(s) and associated infrastructure. Approaches to the antenna(s) must contain appropriate signs warning of EMR and providing contact details for the facility manager.
2. Where relevant, proposals must comply with the BCA for the purposes of construction and the relevant exposure levels as directed by the Australian Communication Authority (ACA) and the Australian Radiation Protection and Nuclear Safety Authority.
3. Council must be notified when infrastructure and associated screening structures are to be removed when it is no longer in use, and the allotment must be restored.
4. Each development must provide a legible weatherproof sign visible to the public in the immediate location of the telecommunications facility.

B2. Visual amenity

1. Antennas and supporting infrastructure must be designed to ameliorate the visual or cumulative visual impact from the public domain and adjacent area ensuring that the development as carried out is in keeping with the streetscape or the surrounding environment, or both.
2. It must be ensured that the scale of the development is in keeping with the locality, bearing in mind that the scale may be affected by the intended coverage of the network or facility.
3. Planting and landscaping of the site must be provided to minimise the impact of structures.
4. The facility must be integrated with the design and appearance of any infrastructure or structure on or within which it is located screening, where practical, any equipment associated with the development so as to reduce its visibility.
5. The development must not obstruct views of significant vistas, landmarks or heritage items

6. The design of telecommunications infrastructure and associated structures must be an appropriate colour and texture to match the colour and pattern of the background.

B3. Location

1. The design of antennas and supporting infrastructure should minimise or reduce the cumulative visual impact from the public domain and adjacent areas.

2. Within the local context, the infrastructure design must take into account: colour, texture, form, bulk and scale.

3. Broadband and other cabling must be located underground.

4. An applicant must demonstrate that in selecting a site for a communications facility (not including a domestic satellite dish), it has adopted a precautionary approach to minimise the EMR exposures to the public by:

- providing written confirmation that the proposed facility complies with the relevant Australian exposure standard as prescribed by the Australian Communications Authority
- providing a site locality analysis plan
- providing a 360 degree prediction map and illustrating the EMR exposure levels and cumulative impact of a proposed facility

5. A written statement is to be prepared and must explain how the proposed telecommunications facility has responded to the site analysis and the objectives of this DCP.

B4. Co-location

Note: Co-location is the practice of locating a number of different telecommunication facilities, often owned by different carriers, on one facility or structure.

1. Telecommunications facilities should be co-located with other utilities wherever this is technically practical, commercially viable and achieves the best environmental outcome and, in particular:

- telecommunications lines should be located within an existing underground conduit or duct, and
- antennae (and similar structures) should be attached via the use of combiners to existing utility poles, towers, structures, buildings or other telecommunications equipment so as to minimise clutter.

2. Efforts made to co-locate are to be demonstrated by the carrier and if co-locating is not proposed it must be demonstrated why it is not viable in the vicinity.

3. The carriers' network master plan for the subject infrastructure type must be included to identify opportunities for co-location or sharing of facilities within or between carriers. Colocation is not a desirable option where:

- Cumulative emissions are significant,
- The infrastructure is visually unacceptable,
- There are physical and technical limits to the amount of infrastructure that structures are able to support; or
- The required coverage cannot be achieved from the location.

4. Any application must demonstrate a precautionary approach and effective measures to minimise any negative impacts of co-location.

B5. Health

1. Telecommunications facilities must be designed, installed and operated to comply with standards relating to human exposure to electromagnetic energy appearing in any applicable codes or standards made under any applicable law of the Commonwealth.

B6. Installation

1. Steps are required to be taken to minimise any obstruction of pedestrians and traffic, and disruption to the enjoyment of adjoining properties, while the facility is being installed.
2. Work shall be carried out during times that cause minimal disruption to public access and the enjoyment of adjoining properties.
3. Traffic control measures shall be taken during construction in accordance with AS 1742.3— 1996 Manual of Uniform Traffic Control Devices open trenching should be guarded in accordance with AS 1165— 1982 Traffic Hazard Warning Lamps.
4. Steps shall be taken to minimise soil erosion arising from the siting and installation of telecommunications facilities.
5. Threatened species and critical habitats shall be avoided, and disturbance to vegetation should be minimised and. At the conclusion of the work, impacted vegetation should be restored by the carrier to the satisfaction of the relevant landowner and, if the work is being carried out under a development consent, to the satisfaction of the consent authority.
6. Street furniture, paving and other existing facilities removed or damaged during construction is to be reinstated or rectified by the carrier and the costs of doing so should be borne by the carrier.

Appendix C – Frequently asked questions

Why is the NSW Government offering guidance on planning for mobile telecommunications infrastructure during the planning for new communities?

Existing Australian and NSW Government policy for digital connectivity is more established for the provision of fixed broadband telecommunications infrastructure (also referred to as fibre-ready) to new developments. The Trial demonstrates there are benefits to all stakeholders from early engagement with one another. It is acknowledged that further discussion between local governments, NSW Planning and service providers is needed to establish a framework for early consultation requirements regarding mobile connectivity and network planning at the precinct planning or rezoning stage.

Mobile digital connectivity is a well-established daily need for the average Australian, contributing to the social and economic functions of cities and communities. Feedback from the community and authorities indicates there is demand for improved mobile digital connectivity in NSW, particularly in regional areas and new communities within greenfield areas.

Similar to addressing mobile black spots in regional areas and peri-urban fringes, the NSW Government recognises the need for coordinated planning of mobile telecommunications infrastructure to provide quality mobile digital connectivity for new communities within urban growth areas. The NSW Government aims to facilitate this outcome through the recommended practices of embedding telecommunications planning in the master-planning and development approval processes outlined in this Guide.

Who will benefit from using this Guide?

State and local authorities can use it for facilitating good planning outcomes that ensure minimum standards of mobile digital connectivity in new communities.

New community developers and mobile telecommunications infrastructure operators can use it to identify opportunities to collaborate on identifying the siting and design of digital infrastructure that will provide equitable connectivity for new communities (see Section 1.3).

Where does this Guide apply?

It is intended to support planning for new communities in greenfield growth areas in NSW, to complement the provisions of the EP&A Act and the T&I SEPP, whereby development for the purposes of telecommunications facilities may be carried out by any person with consent on any land.

Where relevant, it identifies where the provisions of the Telco Act can be used for the planning approval of telecommunications infrastructure (see Section 1.3).

When should mobile telecommunications planning be considered during the planning process for new communities?

A general principle of this Guide is to encourage early engagement between developers and Mobile Network Operators (MNOs) as part of the planning process to accommodate mobile telecommunications infrastructure where required to provide equitable mobile digital connectivity in new communities. Mobile telecommunications should be considered as early as possible in the master-planning process (such as when land use planning is occurring), as land use distribution, density and topography are key determining factors.

Early engagement between the proponent and state and local government can help to identify existing mobile digital connectivity coverage for the area. Early planning for the placement of mobile telecommunications infrastructure needs to consider engineering and network parameters

alongside the needs of all parties, in terms of its aesthetics as well as not impeding other parts of the development.

See Sections 2 and 3 for information on how telecommunications planning can be embedded into master-planning and planning approval processes for new communities.

Why does this Guide focus only on planning for new communities (greenfield development)?

Brownfield development or infill precinct planning (that is, the development of previously developed land) typically takes place in urban areas where there is a high probability of existing utilities and services, including mobile telecommunications infrastructure.

This Guide recognises that greenfield (new) communities often require new infrastructure to support digital connectivity. Feedback from the community and authorities indicates there can be a delay between the occupation of new communities and the provision of mobile digital connectivity. It seeks to support the accelerated delivery of mobile digital equity in new communities in NSW.

What is EME and how is this factored into planning for telecommunications infrastructure?

Electromagnetic energy (EME) or electromagnetic radiation (EMR) is energy on the radio wave spectrum used to send and receive signals between communications equipment, such as mobile telecommunications facilities and mobile phones.

The Australian Government has a process to ensure Australians are safe from the possible health effects of exposure to EME. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has developed a public health standard that sets limits for human exposure to EME. All mobile telecommunications facilities or infrastructure have to comply with this standard by a significant margin.

The limits are set well below the level at which adverse health effects are known to occur and the standard has this precautionary approach built into it to protect the public. Based on this fact and the scientific literature, there are no planning or technical legislative requirements to support the creation of buffer zones from mobile telecommunications facilities to certain land uses such as residential areas, schools or open spaces.

See Section 2.1.3 for more information on EME and the ARPANSA website [Radiofrequency Electromagnetic Energy and the new ARPANSA safety Standard](#).

Where to look for more guidance?

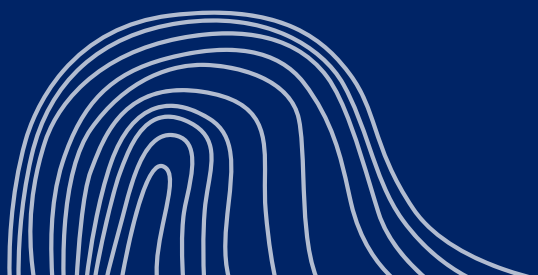
For more guidance and information on mobile telecommunications in new communities, see the Transport for NSW's [Smart Places Playbook](#). Alternatively, email any comments or questions to the Smart Places Division at Transport for NSW at smartplaces@planning.nsw.gov.au.

Appendix D – References

- ACMA (Australian Communications and Media Authority) (2021), [Trend and developments in telecommunications](#) accessed May 2024.
- ACMA (2023), [Communications and media in Australia: How we communicate](#) – Executive summary and key finding, accessed May 2024.
- ARPANSA (2021), [Standard for Limiting Exposure to Radiofrequency Fields – 100 KHz to 300 GHz Radiation Protection Series S-1 \(Rev. 1\)](#), accessed May 2024.
- Communications Alliance (2020), [Mobile Phone Base Station Deployment Industry Code \(C564:2020\)](#), accessed May 2024.
- Department of Environment, Climate Change and Water (2010), [Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW](#), accessed May 2024.
- Department of Planning and Environment (2022), [Developing Plans of Management for community land Crown reserves: Guideline for Council Crown land managers](#), accessed May 2024.
- Department of Planning and Environment (2022), [NSW Telecommunications Facilities Guideline, Including Broadband](#) – (NSW Telco Guideline) accessed May 2024.
- Department of Planning, Infrastructure and Environment (2021), [Digital Infrastructure Technical Report](#), accessed May 2024.
- NSW Telco Authority (n.d.), [NSW Connectivity Strategy](#), accessed May 2024.
- Transport for NSW (2024), [Smart Places Playbook](#), accessed May 2024.
- Transport for NSW (2022), [SmartNSW Roadmap 2022-2027](#), accessed May 2024.
- Transport for NSW (2023), [Technical Guidance: Digital Infrastructure Requirements](#), accessed May 2024.
- the Department of Infrastructure, Transport, Regional Development, Communications and the Arts [Telecommunications in new developments](#) (February 2024) – (TIND) accessed May 2024.

Legislation

- [Biodiversity Conservation Act 2016](#) (NSW) – (BC Act)
- [Crown Lands Act 1989](#) (NSW) – (CL Act)
- [Crown Lands Management Regulation 2018](#) – (CLM Regulation)
- [Environment Protection and Biodiversity Conservation Act 1999](#) (Cth) – (EPBC Act)
- [Environmental Planning and Assessment Act 1979](#) (NSW) – (EP&A Act)
- [Local Government Act 1993](#) (NSW) – (LG Act)
- [Native Title Act 1993](#) (Cth) – (NT Act).
- [Standard Instrument – Principal Local Environmental Plan 2006](#)
- [State and Environmental Planning Policy \(Transport and Infrastructure\) 2021](#) – (T&I SEPP)
- [Telecommunications \(Low-impact Facilities\) Determination 2018](#) – (LIFD)
- [Telecommunications \(Low-impact Facilities\) Amendment Determination 2021](#) – (the Determination)
- [Telecommunications Act 1997](#) (Cth) – (Telco Act)
- [Telecommunications Code of Practice 2021](#) – (Telco CoP)



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