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Statement of Environmental Effects

Application for Development Consent

Proposed Telecommunications Facility at

35-43 Cooerwull Road, Bowenfels NSW 2790
Lot A, DP 374075

Prepared by Waveconn

April 2024

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1 EXECUTIVE SUMMARY

1.1 Site and Proposal Details

Address of Site	35-43 Cooerwull Road, Bowenfels NSW 2790
Legal Property Description	Lot A, DP 374075
Local Authority	Lithgow City Council
Local Environmental Plan	Lithgow Local Environmental Plan 2014
Zone and Overlay	**Land Zoning** • R2 – Low Density Residential
Use	Telecommunications Facility

1.2 Applicant Details

Applicant	Waveconn City West Office Park Suite 3.02, Level 3, Building B 33-35 Saunders Street, Pyrmont, NSW 2009
Contact Person	Chris Hayes Phone No: (02) 8405 7914 Email: chris.hayes@waveconn.com
Our Reference	Lithgow North West AN2790-004

2 INTRODUCTION

This report has been prepared by Waveconn for a proposed mobile telecommunications facility. Waveconn holds the Carrier Licence of Stilmark Holdings for the purposes of the *Telecommunications Act 1997 (Cth)* and operates as an infrastructure provider or 'neutral host', whereby new facilities are sited, designed, acquired, built and maintained by Waveconn, but utilised by carriers - such as the mobile carriers - as part of their respective networks. Waveconn structures are purposely designed and constructed to allow for collocation of at least two or three carriers to occur.

Waveconn has identified an area of poor network coverage in the Lithgow area, including the surrounding roadways, commercial and industrial businesses and residential areas. As such, the mobile Carriers will require the installation of a new telecommunications facility in the local area. A new telecommunications facility located off Cooerwull Road would address the identified mobile coverage deficiencies in the area, whilst also providing the capacity needed for future use and expansion.

Waveconn submits the following report as supporting information to a Development Application for the installation of a 30 metre high telecommunications facility at 35-43 Cooerwull Road, more formally known as Lot A on DP 374075.

This report addresses the merits of the development with regard to the provisions of the Lithgow Local Environmental Plan 2014, along with the relevant State and Federal planning policies applicable to the site location. The planning principles for telecommunications facilities set out in the NSW Telecommunications Facilities Guideline Including Broadband 2010 have also been taken into account. This SEE also provides a background to mobile networks, electromagnetic energy (EME), the purpose of this particular proposal, the site selection and the site characteristics.

3 THE PROPOSED DEVELOPMENT

The proposed telecommunications facility at 35-43 Cooerwull Road is comprised of the following:

- The construction of a new 30 metre high slimline monopole;
- An approximately 10m x 8m compound area, to house future electrical equipment units; and
- The installation of power to the proposed site compound.

The proposed monopole will be constructed of steel, and be a steel grey colour to blend with the surrounding environment. The future equipment units are proposed to be coloured 'eucalypt green' to blend with the surrounding vegetation.

Refer to Site Plans attached at Appendix 1.

4 PURPOSE OF THE PROPOSAL

Waveconn is proposing the facility to cater for the existing, and projected future, need by the carriers in this area, and forms part of a larger strategic program across the country. As such, the proposal represents strategic and practical forward planning based on projected future need - an approach which, for this type of infrastructure, has generally not occurred in the past.

However, it is critical to note that as Waveconn is an infrastructure owner and provider, it will not build the structure until a carrier elects to locate on it – that is, the structure will not be speculatively built in the hope it will be collocated on. As such, there will be no impact – visual or otherwise - from the structure until there is a need for it to be constructed. To that end, Council and the community do not

need to be concerned that unnecessary structures will be constructed, regardless of whether there is an approval in place. Notwithstanding, Waveconn is confident that there will be a demand in time for the proposed structure and seeks an approval on that basis.

Once the structure is in place, it will also be suitable and available for collocation by a second (or potentially third) carrier. This preference and preparation for collocation will also help to minimise the number of such structures in the council area and give Council an improved basis on which to drive collocation when new facilities (by others) are proposed.

In terms of existing and future requirements, the coverage in the area is generally poor due to the undulating terrain in the area, and the lack of existing mobile telecommunications facilities in the area. There are no mobile phone base stations within approximately 2.6 kilometres of the proposed site location. It is not possible to adequately and efficiently service the area around the proposed location from existing facilities. Data services, in particular, are unreliable and throughput speeds slow. Due to the number of residential properties in the surrounding area, the industrial and commercial areas, tourist accommodation and tourist trade, as well as the numerous public recreation areas, it is imperative that a new telecommunications facility be installed to service the exponential demand in mobile telecommunications services into the future. Motorists travelling through the area will also benefit from improved connectivity along the major roadlinks nearby.

Image 1, below, shows an extract from www.rfnsa.com.au, which is an online database of all existing and proposed facilities in Australia. As indicated on the extract, the proposed facility (shown with a yellow cricle) is approximately 2.6 kilometres from all existing mobile telecommunications facilities, with the closest being a facility housing Telstra equipment, located to the east (at Roy Street). The second closest facility, housing Telstra, Optus and Vodafone equipment, is further afield at Braceys Lookout, some 3.3km south-east. These surrounding facilities are shown with a red circle. This shows there is a substantial coverage 'hole' within these existing surrounding sites, including the areas surrounding the proposed site location. The orange circles reference proposed facilities that have not been progressed, including those originally put forward by Sydney Trains that did not proceed.

The lack of telecommunications infrastructure in the local area is putting a major strain on the existing Carrier networks in the surrounding area. This lack of infrastructure becomes even more crucial with the introduction of 5G technology, whereby facilities need to be located closer to each other than for previous 3G and 4G Networks.

Mobile telecommunications connectivity has significantly grown in importance since the introduction of smart phones and tablets. These devices, with increased mobile broadband speeds, capacity and capability, are changing the way we live and operate our day to day lives and businesses. The availability of high-speed, reliable, mobile telecommunications services is becoming an expectation of Australia's population, both in CBD and rural locations.

This facility is part of ongoing Network improvements in the Lithgow Council area, to provide significant enhancements to the mobile telecommunications services of the local area. The improvements to the local Network also include the addition of and ability to provide 5G Network services now and in the future.
Waveconn have future proposals in Marrangaroo and Oakey Park, which will further assist in strengthening the mobile telecommunications network throughout the LGA.

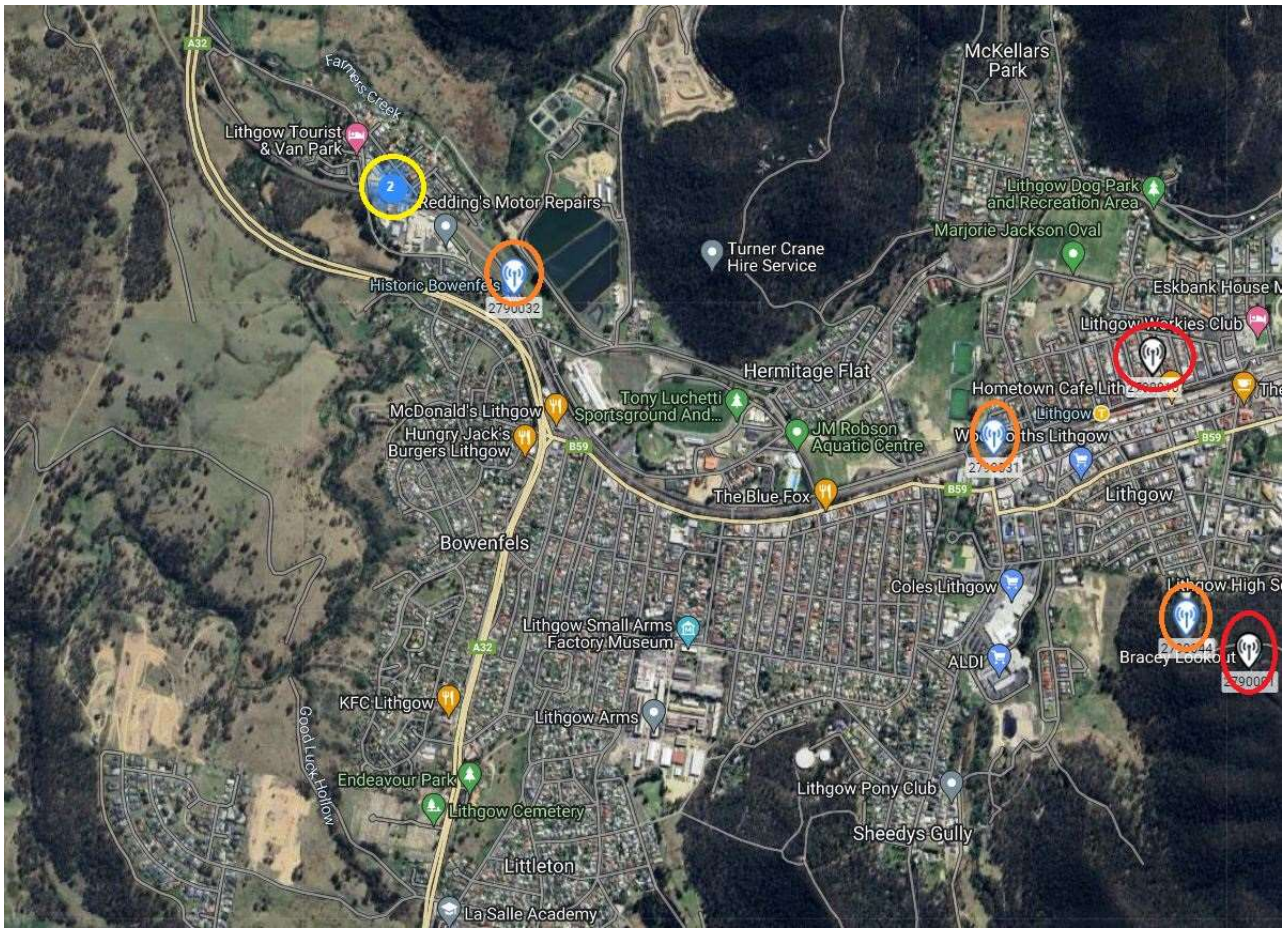

Image 1: Proposed location (yellow circle), with surrounding facilities (red circles), and proposed facilities that have not progressed (orange circles)

The new facility is well placed to allow for new and improved coverage and services to the area.

Given the lack of existing telecommunications infrastructure in the vicinity, collocation is not an option for addressing future requirements and a new structure will be required. The proposed facility is centrally located to the areas requiring coverage improvements, and takes into account the surrounding terrain, with the ability to provide services to the residential, industrial and commercial areas, as well as the nearby roadlinks and rail corridor.

Waveconn's proposed facility will also help to ensure the continued growth of, and competition within the telecommunication industry; resulting in accountable practice and affordable prices for mobile users.

5 MOBILE TELECOMMUNICATIONS NETWORKS

Mobile telecommunications networks are made up of a number of base station facilities (sites) covering a specific geographic area. The sites work by sending and receiving low power radio signals from their antennas to mobile phones and other mobile usage devices, including tablets, wireless internet devices etc. Essentially, base stations are designed to provide service to the area immediately surrounding the site – this can be up to several kilometres. The characteristics of each base station will vary, including their height,

the number of antennas, the type of the facility, etc, depending on the specific technical objectives of the site.

It is generally understood that the higher the antennas at a base station, the greater it's range of coverage to the surrounding area. It is also a misconception that one or two sites can cover an entire surrounding area. Specific site location within the surrounding Network is an integral part of the burgeoning 5G Network. The further a facility is located away from its technically optimum position, the greater the compromise of service. This may result in coverage gaps and require additional or taller base stations to provide adequate service. The 5G Network expansion explicitly has resulted in the need for base stations that are specifically located to provide the improved services to the surrounding users, in this instance specifically the residential, local businesses, and areas surrounding the Cooerwull Road location, as well as the local roadways and public recreation areas.

Base station facilities transmit and receive signals from mobile devices in the vicinity of the site. Mobile devices communicate with the nearest base station facility to them at all times, and if they cannot pick up a signal, the user may not be able to make or receive a call, may notice a significant slowing of data download speeds, or may experience call "drop outs".

There are several reasons for the above service issues:

- The user may be too far away from a facility to receive a signal. To ensure the best level of service to the end user, radio signals ideally need to be unobstructed, and maintain a direct "line-of-sight" to the device.
- Call drop-outs and slow data download rates can occur when too many users are connected to a facility at once. This proposal will ensure the maximum number of users as possible will be able to connect to and utilise an efficient network.
- The 'depth' of coverage may be insufficient in some local areas. This impacts on the ability for use of some mobile devices in buildings or other areas that are influenced by local impediments (trees, walls etc)

The current proposal will form an integral part of Carriers existing and future 5G networks, as well as being able to provide enhanced coverage and services to current and future customers.

6 SITE SELECTION PROCESS

The selection of a new site is dictated by a number of specific factors.

Initially, a subject 'search area' is put forward: this is a specific area whereby a new facility would be anticipated to provide the necessary network services/improvements/future capability to the surrounding locality. Due to the technical operations and requirements of Carriers mobile telecommunications networks, this search area can be as small as 100-200m in radius around a specific location. Image 1 outlines a rough location where a new facility would effectively improve Carriers Networks in the area.

Waveconn then begins the formal site selection process. This involves a search of possible site locations that will meet the network technical requirements, including the ability to integrate into the existing and proposed network, and to provide for network expansion into 5G. There are a number of criteria that are evaluated as part of this site selection process, including the ability to enter into a tenure agreement with landowners, and the necessary town planning requirements of a new facility.

Technical computer modelling is undertaken to review whether the proposed subject site would adequately meet the network objectives of a new site in the area. This involves the expected coverage propagation from the site location, and essentially dictates the equipment necessary, and the type and height of the proposed facility. As some Networks can be 'linked' together via microwave transmission dishes, the ability

to connect to a nearby site location (whether this be existing or proposed) is also of paramount importance to the location of any new facility.

Due to the very specific requirements of a new site location, specifically the need to integrate effectively into the existing and future network arrangements, new site options are often limited.

7 JUSTIFICATION FOR SITE SELECTION

Waveconn have investigated the possible deployment options in the nominated area, and concluded that a new telecommunications facility at 35-43 Cooerwull Road, Bowenfels, would be the most appropriate solution to provide for the necessary Carrier improvements in the area.

This section of the report will outline the following:

- Colocation opportunities and existing telecommunications infrastructure within proximity to the proposed installation; and
- An analysis of the proposed location and why it has been selected to site the new Waveconn facility.

Colocation opportunities

The Communications Alliance Ltd. (formerly Australian Communications Industry Forum Ltd. - ACIF) *Industry Code C564:2020 – Mobile Phone Base Station Deployment* promotes the use of existing sites where possible.

In this instance, there are no existing and/or proposed telecommunications facilities in the greater surrounding area that are close enough to adequately improve the services to the surrounding area and facilitate the effective addition of the 5G network, shown in Image 1 above. The closest existing telecommunications facility is almost 2.6km from the proposed site location, and is too far distanced from the areas requiring coverage improvements to adequately better the services in this location. The existing telecommunications facilities in the distant areas have been in place for a number of years, and have been able to provide telecommunications services for Carrier's original networks throughout the local area (these original networks have included 2G and 3G networks). Importantly, these original network facilities were not intended to provide for the updated technological services that are provided through 4G and 5G Networks.

As is visually apparent, there is currently a significant 'hole' within the existing mobile telecommunications facilities in the greater area. This proposed facility at 35-43 Cooerwull Road, provides for a centrally located facility utilising a local high point. A site in this location will be able to effectively and efficiently deliver the mobile telecommunications services necessary to the surrounding area, both now and into the future.

The existing telecommunications facilities in the area are unable to provide the depth of coverage and capacity into the areas surrounding the proposed site location, and a new facility is critical to enhancing the availability of Carrier's Networks, as well as integrating into the surrounding Network of sites. Due to the nature of telecommunications facilities and improvements in mobile telecommunications equipment, it is necessary for facilities to be located in proximity to the areas they are providing services to. Existing sites in the area are too far distanced to provide the services required by this new facility.

Further, Carrier telecommunications facilities are often linked via microwave radiocommunications dishes. These require direct line of site to existing and/or proposed sites in the network. As new sites are added to the network, specifically for the 5G rollout, the ability to link into the adjoining network sites is integral to the operation of the entire local network. The proposed site location at Cooerwull Road ensures that the Carriers can connect to their extended local network of existing and future telecommunications facilities.

The main requirement for a new telecommunications facility in the area is to accommodate the combination of;

- improved coverage and services to the surrounding area, specifically the growing customer base within the residential areas and roadways;
- facilitating the requirements necessary to upgrade to the latest mobile technologies, along with preparing for further 5G network rollouts; and
- helping the surrounding facilities integrate effectively into the greater Network of sites by helping capacity and connectivity issues in areas with limited service.

To accommodate the above-mentioned service improvements, and future technology equipment, a new structure is necessary.

There were no suitable colocation opportunities to provide for the required radio frequency coverage objectives in this instance. Due to the density of the residential population in the surrounding area, along with the industrial and commercial uses and motorists nearby, a new facility is necessary.

Proposed site location

Following investigations into a location that would provide a site to adequately service the needs of the Carrier's existing and future networks, the proposed site location was chosen as 35-43 Cooerwull Road, Bowenfels. The proposed site location offers the necessary height, whilst importantly being central to the area where Carriers require coverage improvements. The site location is immediately abutting an existing commercial use, in the storage warehouse, and the existence of mature vegetation immediately adjoining the site location will also assist in reducing the visual impact of the facility to the nearby residential areas. Candidate options were limited due to the requirements for a site on an elevated parcel of land that would meet coverage requirements, and that would not impede the existing and future use of land. The proposed site location has attempted to strike a balance between all factors in the environment.

Image 2: Proposed site location, 35-43 Cooerwull Road, Bowenfels – Source*: Google Maps*

The property at 35-43 Cooerwull Road is an irregular shaped lot, shown at Image 3, below. The proposed site location is towards the eastern boundary of the property, whereby it is proposed to relocate the existing water tanks slightly further east.

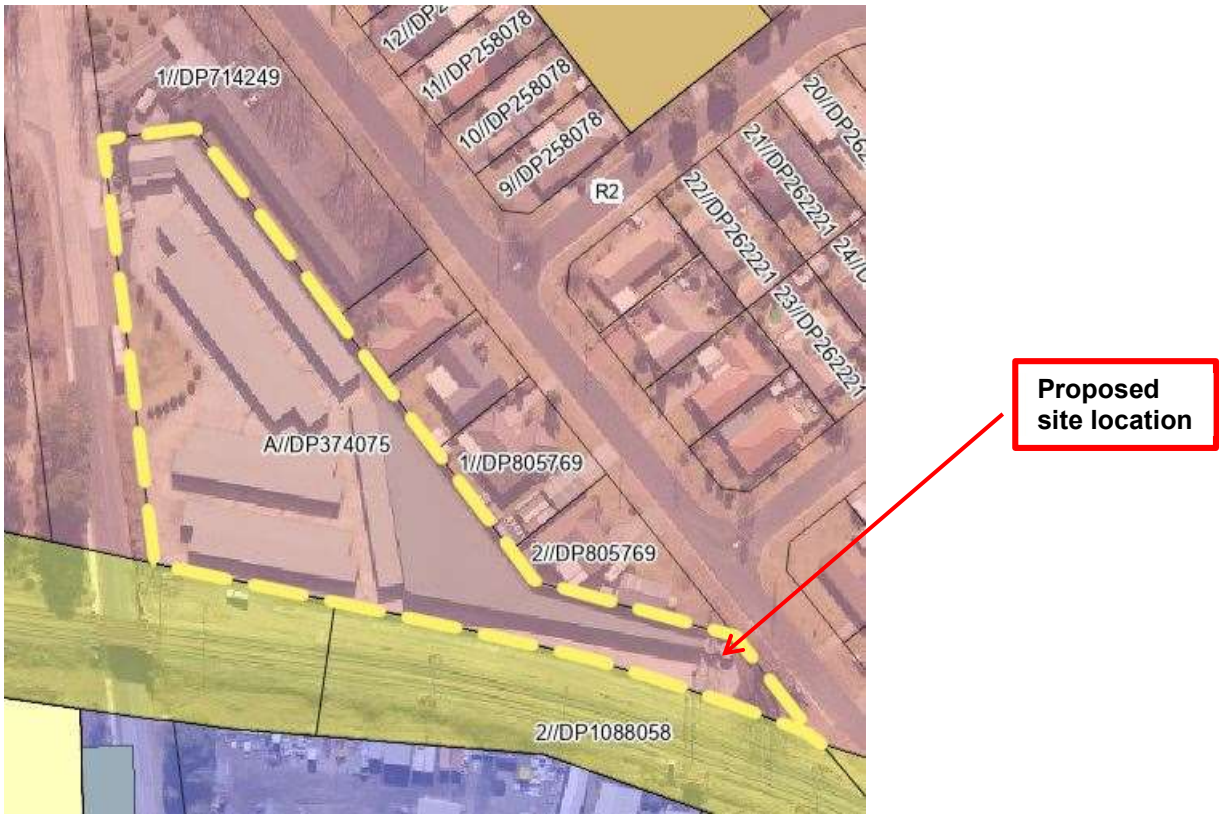

Image 3: 35-43 Cooerwull Road, Bowenfels – Source: NSW Planning Portal

It is proposed to access the site via the existing property access off Cooerwull Road, however it is noted there are also access gates on the Fullagar Avenue side of the property, which may be utilised for construction access. There is adequate space on site for service vehicle parking, and due to the minor occurrence of service visits, approximately 4 visits per year, there will be no impact on surrounding roadways.

The proposed site location is setback approximately 8m from Fullagar Avenue, behind the existing fencing of the storage facility, and approximately 145m east of Cooerwull Road itself. The site is afforded a level of screening from the existing mature vegetation in the immediate vicinity. The ground based equipment shelter will not be visible to the surrounding areas, and while the monopole and headframe will be seen to the nearby and surrounding areas, its impact will be minimised by siting nearby to the railway line and other industrial uses to the south.

When viewed from surrounding roadways and residential areas it is understood that the proposed facility will be visible to varying degrees. However, due to the specific siting and design of the facility, its visual impact will be mitigated as much as is possible. It is the inherent nature of a telecommunications facility that it protrudes above the areas it is providing coverage to, and in this instance, the shortest possible structure is being proposed to cater for mobile coverage improvements.

Waveconn have concluded that a new facility at 35-43 Cooerwull Road is the most appropriate option to pursue following technical investigations into Carriers requirements of a new site in this area. The ability to secure adequate tenure arrangements with the land owner, ease of site access and construction, and environmental planning issues have all been considered in the selection of this site. It is submitted that the site is accessible, will result in minimal impact on the amenity of the area, and is technically viable – including the necessary requirements to be able to provide for the mobile Carriers existing and future network growth, integration into the 5G network, and connection with nearby network facilities. The proposed site location

is centrally located to the areas that will benefit from improved coverage and mobile telecommunications services.

8 SURROUNDING AREA AND VISUAL IMPACT

The proposed site location is approximately 150m off Cooerwull Road, and accessed via the existing driveway on the property. The subject site of the proposed facility is almost immediately off Fullagar Avenue, however at this stage it is not proposed to access the location from this side. The subject property is a self-storage facility, with numerous garages and lockers available for public use. The property has a significant railway line immediately to the south, which will assist in minimising the perceived impact of the facility to the surrounding area, especially the residential areas to the immediate north and east.

While the subject property is not typical of other properties in the surrounding area, there are a mixed use of landuses nearby, including tourist, residential, commercial, industrial, and public recreation (as well as the above mentioned transport).
The vegetation that is found immediately surrounding the proposed site location will assist in mitigating some visual impact of the facility, however it is understood that there will be a level of visual impact to some vantage points.
The undulating terrain in the near and distant environment plays an important role in both the requirement for a new facility in this area, and also in helping to mitigate visual impact, with distance separation, elevation, and vegetation in the surrounding area all playing a role.
The proposed site location is immediately north of the existing industrial area and goods railway line. The proposed facility will been seen against these existing elements in the environment when viewed from the north.

It is considered that there will be visual impact from the proposed facility, however it is limited, and intermittent in nature in the surrounding area.

It is accepted that due to the nature of a telecommunications facility, it may be seen to varying degrees in the surrounding area. However. due to the terrain in the surrounding area, and the existing vegetation on the subject property and surrounds, the lower portion of the monopole and the ground based equipment will be screened from surrounding view. The upper most portion of the monopole and headframe will be visible from some locations surrounding the property.

A selection of photomontage depictions of the proposed facility when viewed from the surrounding area are located at Appendix 3, with the corresponding locations shown on the image below.

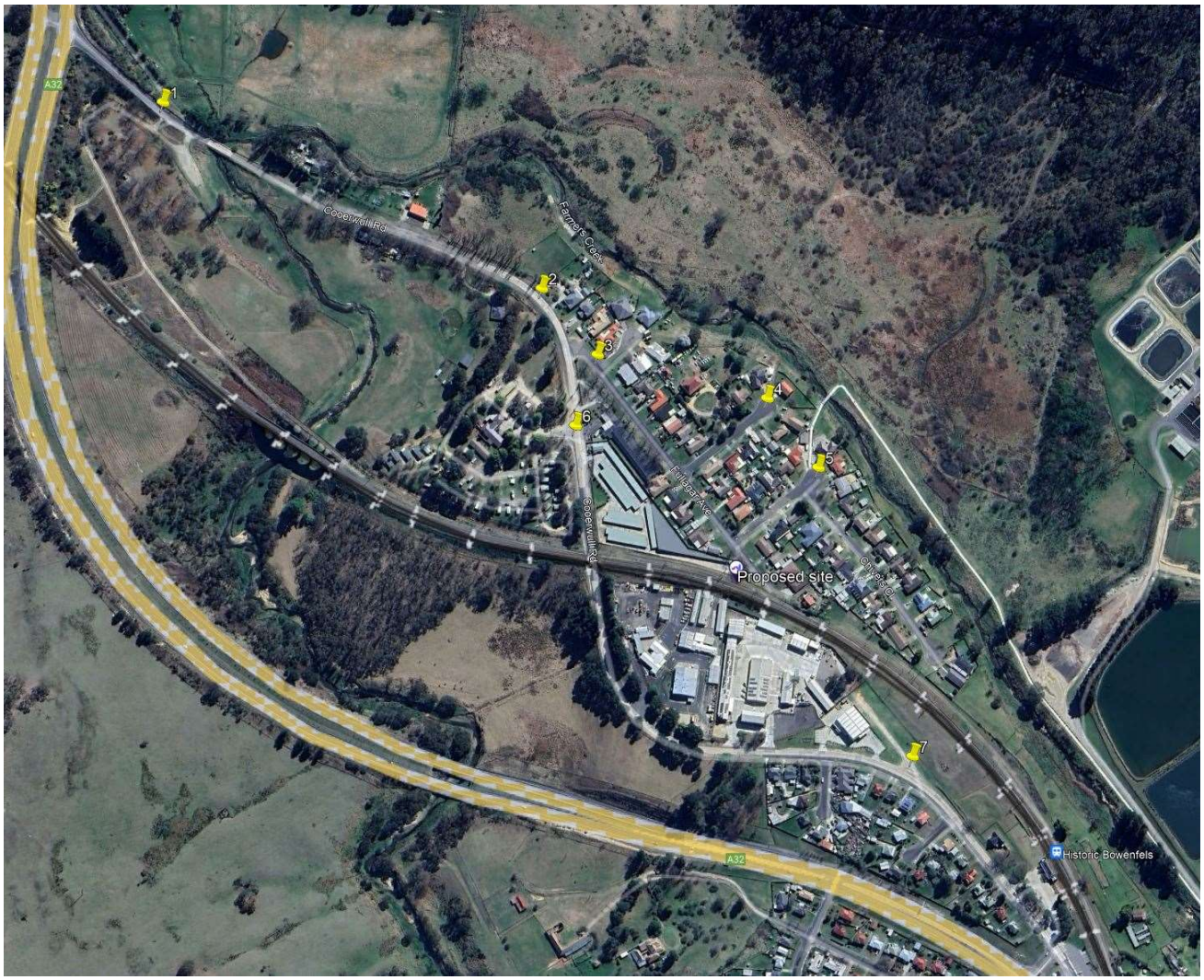

Image 4: Photomontage depiction locations (montages found at Appendix 3) – Source: *Google Earth*

Viewed from the North:

Due to the residential area to the north of the proposed site location, most views of the facility will be from the north/north-east.
When viewed from the residential area, the upper portion of the proposed facility will be visible from a number of vantage points, as is depicted in the photomontage depictions at Appendix 3.
The montages, and following images, show that the proposed facility will be seen in conjunction with other elements in the environment, including the built form of the residential area, the industrial area further south, and vertical elements such as power poles and power lines and mature vegetation.

When viewed from around 500m north-west, on Cooerwull Road, the proposed facility will be entirely screened due to the mature vegetation that is in the vicinity and lining the roadway. This is seen in Image 5, below.

Image 5: View towards the proposed site location from Cooerwull Road, approximately 500m north-west – Source: *Waveconn*

The impact of the existing vegetation surrounding the site location is shown in image 6 below. Even at a closer distance of around 160m north, the proposed facility will benefit from mature vegetation, and will also be seen in conjunction with other vertical elements including power lines and power poles.

Image 6: View towards the proposed site location from Fullagar Avenue, approximately 160m north – Source: *Waveconn*

In the immediate vicinity, around 70m north of the proposed site location, the upper portion of the monopole will be visible to the surrounding area, however the lower sections and the ground based equipment will be screened by existing fencing, and the mature vegetation present. As this is a no-through road, it is also not a significantly frequented vantage point.

Image 7: View towards the proposed site location from Fullagar Avenue, approximately 70m north – Source: *Waveconn*

Viewed from the South:

Views of the proposed facility from the south are predominately limited due to the distance separation from the site location, and the existing industrial uses between the site and the southern residential area. It is also noted that the Great Western Highway is located approximately 300m to the south of the proposed site location, and provides a further buffer for residential areas to the south.

Image 8, below, shows the view north towards the proposed site location from Cooerwull Road, around 220m south. The existing commercial and industrial area, along with the railway line, provide a significant distance and visual buffer towards the site location, along with other existing vertical elements in the environment. Only the upper section of the monopole is expected to be visible from these vantage points.

Image 8: View towards the proposed site location from Cooerwull Road, approximately 220m south – Source: *Waveconn*

Image 9, taken around 500m south of the proposed site location, shows that from public vantage points, the proposed facility is expected to provide only a minimal visual element in the environment due to distance separation, and its siting in proximity to mature vegetation and other vertical elements.

Image 9: View towards the proposed site location from Cooerwull Road, approximately 500m south-east – Source: *Waveconn*

The visual impact of the proposed facility from areas further south will be minimal, with most vantage points being unable to see the proposed site location due to built elements in the environment, the terrain of the area, and distance separation itself.
It is not considered that the proposed facility is an unaccetpable visual addition when viewed from the south.

Viewed from the East:

Views towards the proposed facility from the immediate east are primarily from residential streets. These are specifically highlighted in the photomontage depictions found at Appendix 3. It is accepted that these areas will have a degree of visual impact from the proposed facility, however the lower portions of the structure, as well as the ground based equipment, will be shielded from view by existing fencing and the mature vegetation in the immediate vicinity.
Image 10, which is also provided as a photomontage depiction in Appendix 3, highlights that while the upper portion of the facility will be visible from this specific vantage point on the roadway, there are other elements in the nearby environment, including vegetation and vertical elements, that will help to minimise the visual impact of a new structure.

Image 10: View towards the proposed site location from Chivers Close, approximately 120m east – Source: *Waveconn*

Image 11: View towards the proposed site location from Chivers Close, approximately 230m south- east – Source: *Waveconn*

Image 11, taken from the southern end of Chivers Close, shows that while the upper portion of the facility will be visible, it will be seen in conjunction with other vertical elements such as power lines and power poles, railway infrastructure, the nearby industrial area workings, and mature vegetation in the surrounding area.

Viewed from the West:

Due to the specific siting of the proposal and the undulating terrain, the facility will not be visible from many public vantage points when viewed from the west. There will be vision of the facility from roadways, however these will be intermittent in nature, and it is not considered that the facility will detract from the surrounding environment for motorists travelling west of the site location.
Image 12, below, is taken almost 800m from the proposed site location. While it is expected that the facility will be faintly visible from this vantage point, it will not be a significant visual element in the environment, and will not detract from the existing natural and built environment, including the bridges and vegetation in the area.
This is depicted through a photomontage at Appendix 3.

Image 12: View towards the proposed site location from Cooerwull Road, approximately 770m north-west – Source: *Waveconn*

Image 13: View towards the proposed site location from Cooerwull Road, approximately 225m north-west – Source: *Waveconn*

Image 13, above, is taken from a nearby tourist destination, and has vision across the existing self-storage property towards the site location. It is expected that the upper portion of the facility will be visible from this vantage point, however it is not considered an inappropriate or uncommon site form such location. Further, the facility will be seen in conjunction with other vertical elements in the environment, and will not detract from any significant views of vistas.
This image has a photomontage depiction provided at Appendix 3.

The above images, and associated photomontage depictions, show that while the proposed telecommunications facility may be visible at some vantage points, primarily when there is direct vision, the use of a slimline monopole structure, along with the specific siting and design, will enable it to be minimised as much as is possible. The proposed structure is considered a visually acceptable outcome taking into account the inherent nature of telecommunications facilities needing to be sited in the centre of the area which they are required to service, and requiring line of sight to the areas which they are proposed to cover. Further, the siting of the proposed facility in an area with existing mature vegetation in the near vicinity, near a railway corridor and industrial area, ensures that the visual impact is ameliorated as much as is possible.

From more distant vantage points, the proposed facility will have the backdrop of vegetation, and will be seen in conjunction with other existing vertical elements. From a distance, it is not expected that the monopole will be a focal point in the area.

Through our experience, the best visual outcome is to retain the proposed monopole's 'grey' appearance, as it recedes into the background in most settings. If Council considers that an alternative colour would be better suited in this instance, it could be accepted as a condition of any potential Approval.

9 FEDERAL REGULATORY FRAMEWORK

The following information provides a summary of the Federal legislation relevant to telecommunications development proposals.

9.1 Commonwealth Telecommunications Act, 1997

The *Telecommunications Act 1997* (the Act) came into operation on 1st July 1997. The Act provides a system for regulating telecommunications and the activities of carriers and service providers.

The Act ensured that telecommunications carriers are no longer exempt from State and Territory planning laws except in three limited instances:

1. There are exemptions for inspection of land, maintenance of facilities, installation of "low impact facilities", subscriber connections and temporary defence facilities. These exemptions are detailed in the *Telecommunications (Low-impact Facilities) Determination 1997* and the *Amendment No. 1 of 2012* and these exceptions are subject to the *Telecommunications Code of Practice 1997*;
2. A limited case-by-case appeals process exists to cover installation of facilities in situations of national significance; and
3. There are some specific powers and immunities from the previous *Telecommunications Act 1991*.

9.1.2 Telecommunications (Low-impact Facilities) Determination, 2018

The Telecommunications (Low-impact Facilities) Determination came into effect on 20th February 2018.

The Determination contains a list of Telecommunications Facilities that the Commonwealth will continue to regulate. These are facilities that are essential to maintaining telecommunications networks and are unlikely to cause significant community disruption during their installation or operation. These facilities are therefore considered to be 'Low-impact' and do not require planning approval under State or territory laws.

The proposed facility applied for here within does not fall under the Determination and, therefore, requires approval under State planning legislation.

9.2 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act* commenced on 16th July 2000. It introduced a new role for the Commonwealth Government in the assessment and approval of development proposals where those proposals involve actions that have a significant impact on matters of National Environmental Significance, the environment of Commonwealth owned land and actions carried out by the Commonwealth Government.

The proposal is not of National Environmental Significance, as it will not impact on:

- World Heritage Areas;
- Wetlands protected by International Treaty (The RAMSAR Convention);
- Nationally listed threatened species and communities;
- Nationally listed migratory species;
- All nuclear actions; or
- The environment of Commonwealth Marine area.

9.3 Communications Alliance Ltd. Code C564:2020 Industry Code – Mobile Phone Base Station Deployment

The new Communications Alliance Ltd. C564:2020 *Industry Code – Mobile Phone Base Station Deployment* (referred to as the Deployment Code) replaced the Australian Communications Industry Forum (ACIF) '*Industry Code - Deployment of Mobile Phone Network Infrastructure'* (more commonly referred to as the ACIF Code) in July 2012. The purpose of the revisions incorporated in the new Deployment Code are to provide certainty and clarity for all parties in the implementation of the Code, for example, with regard to the consultation process with Council's and communities and with regard to providing and updating RF EMR Health and Safety information, reports and signage in keeping with relevant standards.

Like the ACIF Code, the new Deployment Code cannot change the existing regulatory regime for telecommunications at local, State or Federal level. However, it supplements the existing obligations on carriers, particularly in relation to community consultation and the consideration of exposure to radio signals, sometimes known as electromagnetic energy (EME or EMR).

The Code imposes mandatory levels of notification and community consultation for sites complying with the *Telecommunications (Low-impact Facilities) Determination 1997*. It identifies varying levels of notification and/or consultation depending on the type and location of the infrastructure proposed.

The subject proposal, not being designated a 'Low-impact' facility, is not subject to the notification or consultation requirements associated with the Deployment Code. These processes are handled within the relevant State and Local consent procedures.

9.4 EME and Health

Mobile Carriers acknowledge that some people are genuinely concerned about the possible health effects of electromagnetic energy (EME) from mobile phone base stations and is committed to addressing these concerns responsibly.

All mobile phone carriers, must strictly adhere to Commonwealth Legislation and regulations regarding mobile phone facilities and equipment administered by the Australian Communications and Media Authority (ACMA).

In 2020 the ACMA adopted a technical standard for exposure of the general public to RF EME from mobile base stations. The standard, known as the 'Standard for Limiting Exposure to Radiofrequency Fields – 100kHz to 300GHz (2021) RPS S-1 (Rev 1)', was prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and is the same as that recommended by ICNIRP (International Commission for Non-Ionising Radiation Protection), an agency associated with the World Health Organisation (WHO). Mobile carriers must comply with the Australian Standard on exposure to EME set by the ACMA.

The Standard operates by placing a limit on the strength of the signal (or RF EME) that Carriers can transmit to and from any network base station. The general public health standard is not based on distance limitations, or the creation of "buffer zones". The environmental standard restricts the signal strength to a level low enough to protect everyone, always, including children. It has a significant safety margin, or precautionary approach, built into it.

All Carriers rely on the expert advice of national and international health authorities such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the World Health Organisation (WHO) for overall assessments of health and safety impacts.

The WHO advises that all expert reviews on the health effects of exposure to radiofrequency fields have concluded that no adverse health effects have been established from exposure to radiofrequency fields at levels below the international safety guidelines that have been adopted in Australia.

Carriers have strict procedures in place to ensure their mobile phone base stations comply with these guidelines.

10 STATE PLANNING ASSESSMENT

The following State legislation/ guidelines are relevant to telecommunications development proposals in New South Wales:

10.1 SEPP (Transport and Infrastructure) 2021

The State Environmental Planning Policy (SEPP) (Transport and Infrastructure) 2021 provides a consistent planning regime for transport and infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process. Division 21 of the SEPP applies to telecommunications and other communication facilities, establishing the approval regimes for telecommunications in NSW. Division 21 classifies certain telecommunications development that is permitted without consent, with consent and exempt from local environmental approvals. Reference is made to clause 2.143 (1), which states:

> "*Development for the purposes of telecommunications facilities, other than development in section 2.141 or development that is exempt development under section 2.20 or 2.144, may be carried out by any person with consent on any land."*
> Telecommunications facility is defined to mean:
> *"(a) any part of the infrastructure of a telecommunications network, or*
> *(b) any line, cable, optical fibre, 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 conjunction with a telecommunications network."*

Clause 2.144 and 2.145 allow for greater flexibility in installing new towers and facilities. Under this amendment, new telecommunications towers required to deliver broadband or mobile phone access in certain rural or industrial zones would be allowed as complying development subject to amenity and safety issues like height limits and separation from residential areas.

This proposal does **not** meet the requirements of exempt or complying development under this SEPP.

The *SEPP (Transport and Infrastructure) 2021* is of specific relevance to the proposal as the provisions of clause 2.143 (as noted above) is being relied upon for permissibility of the proposed development at the subject location and are the basis for lodging and seeking Council consent for this development.

Telecommunications facilities are therefore permissible in all zones within the Lithgow Council LGA with the consent of the Council.

Clause 2.143 (2) of the SEPP provides that:

Before determining a development application for development to which this section applies, the consent authority must take into consideration any guidelines concerning site selection, design, construction or

operating principles for telecommunications facilities that are issued by the Secretary for the purposes of this section and published in the Gazette.

In this respect, the *NSW Telecommunications Facilities Guideline including Broadband (July 2010)* has been issued by the Secretary.

10.2 NSW Telecommunications Facilities Guideline including Broadband (2010)

The proposal's consistency with the Guideline principles is addressed in Table 1 below.

Table 1 Compliance with the Principles of NSW Telecommunications Facilities Guideline including Broadband (2010)

Principle 1: *A Telecommunications Facility should be sited to minimise visual impact*	
Specific Principles	**Comment**
(a) As far as practical, a telecommunications facility that is to be mounted on an existing building or structure should be integrated with the design and appearance of the building or structure. *(b) The visual impact of telecommunications facilities should be minimised, visual clutter is to be reduced particularly on tops of buildings, and their physical dimensions (including support mounts) should be sympathetic to the scale and height of the building to which it is to be attached, and sympathetic to adjacent buildings.* *(c) Where telecommunications facilities protrude from a building or structure and are predominantly backgrounded against the sky, the facility and their support mounts should be either the same as the prevailing colour of the host building or structure, or a neutral colour such as grey should be used.*	(a) to (c) These principles relate to facilities that are located on an existing building or structure and are not directly applicable to new freestanding structure elements such as those proposed in this instance. As such, these elements are not applicable.
(d) Ancillary facilities associated with the telecommunications facility should be screened or housed, using the same colour as the prevailing background to reduce its visibility, including the use of existing vegetation where available, or new landscaping where possible and practical	(d) The associated equipment will be housed in an equipment shelter near the base of the pole. This equipment is proposed to be painted green to blend with surrounding fencing.
(e) A telecommunications facility should be located and designed to respond appropriately to its rural landscape setting.	(e) The use of a slimline, low-height pole, is considered appropriate to service the surrounding areas. While not in a rural setting, the proposed facility is located in

	proximity to an industrial area and a significant goods railway line.
(f) A telecommunications facility located on, or adjacent to, a State or local heritage item or within a heritage conservation area, should be sited and designed with external colours, finishes and scale sympathetic to those of the heritage item or conservation area.	(f) The proposed facility is not in immediate proximity to a heritage item. It is not considered that any nearby heritage item or area will be negatively impacted by this proposal.
(g) A telecommunications facility should be located so as to minimise or avoid the obstruction of a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land.	(g) The proposed facility is not considered to be in a location that will negatively impact or obstruct a significant view.
(h) The relevant local government authority must be consulted where the pruning, lopping, or removal of any tree or other vegetation would contravene a Tree Preservation Order applying to the land or where a permit or development consent is required.	(h) The proposed facility will utilise an existing unused space on the property, and no vegetation removal is proposed.
(i) A telecommunications facility that is no longer required is to be removed and the site restored, to a condition that is similar to its condition before the facility was constructed.	(i) This aspect could be implemented by a condition of consent if the Council considers it appropriate.
(j) The siting and design of telecommunications facilities should be in accordance with any relevant Industry Design Guides.	(j) The design and siting approach is discussed in detail in **Section 7**. It is considered an appropriate design proposal for the proposed site location.
Principle 2: *Telecommunications Facilities should be co-located wherever possible*	
Specific Principles	**Comment**
(a) Telecommunications lines are to be located, as far as practical, underground or within an existing underground conduit or duct.	(a) N/A – The proposal does not involve the installation of new telecommunications lines.
(b) Overhead lines, antennas and ancillary telecommunications facilities should, where	(b)(c)(d)(e) There are currently no existing carrier telecommunications facilities located in the vicinity,

practical, be co-located or attached to existing structures such as buildings, public utility structures, poles, towers or other radio communications equipment to minimise the proliferation of telecommunication facilities and unnecessary clutter *(c) Towers may be extended for the purposes of colocation.* *(d) The extension of an existing tower must be considered as a practical co-location solution prior to building new towers.* *(e) If a facility is proposed not to be co-located the proponent must demonstrate that colocation is not practicable.* *(f) If the development is for a co-location purpose, then any new telecommunications facility must be designed, installed and operated so that the resultant cumulative levels of radio frequency emissions of the co-located telecommunications facilities are within the maximum human exposure levels set out in the Radiation Protection Standard.*	with the required position and/or height and/or structural suitability that are potentially capable of providing the wireless radio services to the locality on which the proposed equipment can be co-located. Collocation was not a viable option in this area. (Refer to **Section 7**). (f) N/A – The proposal is not for co-location.
Principle 3: *Health Standards for exposure to radio emissions will be met*	
Specific Principles	**Comment**
(a) A telecommunications facility must be designed, installed and operated so that the maximum human exposure levels to radiofrequency emissions comply with Radiation Protection Standard. *(b) An EME Environmental Report shall be produced by the proponent of development to which the Mobile Phone Network Code applies in terms of design, siting of facilities and notifications. The Report is to be in the format required by the Australian Radiation Protection Nuclear Safety Agency. It is to show the predicted levels of electromagnetic energy surrounding the development comply with the safety limits imposed by the Australian Communications and Media Authority and the Electromagnetic Radiation Standard, and demonstrate compliance with the Mobile Phone Networks Code*.	(a) The proposed installation will comply with Australian Communications and Media Authority (ACMA) regulatory arrangements with respect to electromagnetic radiation exposure levels. (b) While no radiating equipment will be installed initially on this proposed facility, once operational, an Environmental EME Report, as required by the ARPANSA, will be produced and provided to Council. Please also refer to *Section 9.4*

Principle 4: *Minimise disturbance and risk, and maximise compliance*	
Specific Principles	**Comment**
(a)The siting and height of any telecommunications facility must comply with any relevant site and height requirements specified by the Civil Aviation Regulations 1988 and the Airports (Protection of Airspace) Regulations 1996 of the Commonwealth. It must not penetrate any obstacle limitation surface shown on any relevant Obstacle Limitation Surface Plan that has been prepared by the operator of an aerodrome or airport operating within 30 kilometres of the proposed development and reported to the Civil Aviation Safety Authority Australia.	(a) The proposed facility is not located within the boundaries of any Obstacle Limitation Surface from an aerodrome within the greater Sydney area.
(b) The telecommunications facility is not to cause adverse radio frequency interference with any airport, port or Commonwealth Defence navigational or communications equipment, including the Morundah Communication Facility, Riverina.	(b) The base station is designed to create no electrical interference problems with other radio based systems and complies with the requirements of relevant Australian standards in this regard. It is, indeed, the intent of this facility to distance itself from the existing communications tower in the area.
(c) The telecommunications facility and ancillary facilities are to be carried out in accordance with the applicable specifications (if any) of the manufacturers for the installation of such equipment.	(c) The base station facilities are designed and will be installed in accordance with any relevant manufacturer specifications. The proposal will comply with the requirements of all relevant Australian Standards.
(d) The telecommunications facility is not to affect the structural integrity of any building on which it is erected.	(d) The facility (monopole) is not being erected on any existing building or structure.
(e) The telecommunications facility is to be erected wholly within the boundaries of a property where the landowner has agreed to the facility being located on the land.	(e) The location and layout of the facilities reflect discussions with the private landowner of 35-43 Cooerwull Road, Bowenfels.
(f) The carrying out of construction of the telecommunications facilities must be in accordance with all relevant regulations of the Blue Book – 'Managing Urban Stormwater: Soils and Construction' (Landcom 2004), or its replacement.	(f) (h) (i) (j) These matters can be appropriately addressed through the imposition of conditions of development consent where relevant.
(g) Obstruction or risks to pedestrians or	(g) The proposed facility is to be sited on a private lot and is secured by a fenced gate area to avoid access to

vehicles caused by the location of the facility, construction activity or materials used in construction are to be mitigated.	the public. The proposal is therefore unlikely to put pedestrians or vehicles at risk.
(h) Where practical, work is to be carried out during times that cause minimum disruption to adjoining properties and public access. Hours of work are to be restricted to between 7.00am and 5.00pm, Mondays to Saturdays, with no work on Sundays and public holidays.	(h) Work will be carried out in accordance with the standard hours of work as recommended by council.
(i) Traffic control measures are to be taken during construction in accordance with Australian Standard S1742.3-2002 Manual of uniform traffic control devices – Traffic control devices on roads.	
(j) Open trenching should be guarded in accordance with Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps.	
(k) Disturbance to flora and fauna should be minimised and the land is to be restored to a condition that is similar to its condition before the work was carried out.	(k)(l) No disturbance to flora and fauna has been achieved by siting the proposed facility on an area of land that is clear of vegetation.
(l) The likelihood of impacting on threatened species and communities should be identified in consultation with relevant state or local government authorities and disturbance to identified species and communities avoided wherever possible.	
(m) The likelihood of harming an Aboriginal Place and / or Aboriginal object should be identified. Approvals from the Department of Environment, Climate Change and Water (DECCW) must be obtained where impact is likely, or Aboriginal objects are found.	(m) As the proposed site location has been previously disturbed, it is expected the likelihood of harming an Aboriginal place or object is low. Should any item of Aboriginal significance be discovered during the excavation or construction works, all works on site would cease and appropriate measures taken.
(n) Street furniture, paving or other existing facilities removed or damaged during construction should be reinstated (at the telecommunications carrier's expense) to at least the same condition as that which existed prior to the telecommunications facility being installed.	(n) This is unlikely to occur given the nature of the works.

11 Local Planning Framework

As the Local Government Authority, Lithgow Council have their own Local provisions relevant to telecommunications development proposals. A broad summary can be found below.

11.1 Local Environmental Plan – Lithgow Local Environmental Plan (LLEP) 2014

The relevant local environmental plan applicable to the subject site is the *Lithgow Local Environmental Plan (LLEP) 2014*. This Plan aims to make local environmental planning provisions for land in the Lithgow LGA.

The particular aims of the Plan are as follows:

(1) This Plan aims to make local environmental planning provisions for land in Lithgow in accordance with the relevant standard environmental planning instrument under section 3.20 of the Act.

(2) The particular aims of this Plan are as follows:

(aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,

(a) to encourage sustainable and planned development that complements the unique character and amenity of Lithgow and enhances its towns, villages and rural areas,

(b) to provide for a range of development opportunities that contribute to the social, economic and environmental resources of Lithgow in a way that allows the needs of present and future generations to be met by implementing the principles of ecologically sustainable development,

(c) to manage, facilitate and encourage sustainable growth and development that—

(i) promotes the efficient and effective delivery of utilities, infrastructure and service and minimises long-term costs to government, authorities and the community, and

(ii) protects, enhances and conserves mineral and extractive resources lands, forests and agricultural lands and the contributions they make to the local, regional and State economy, and

(iii) allows for the orderly growth of land uses while minimising conflict between land uses in a zone and land uses in adjoining zones, and

(iv) encourages a range of housing choices in planned urban and rural locations to meet population growth and the diverse needs of the community, and

(v) preserves and protects land that has been identified for future long term urban development from inappropriate fragmentation and development, and

(vi) protects and enhances environmentally sensitive areas, ecological systems, areas of high scenic, recreational, landscape or conservation value and areas that have the potential to contribute to improved environmental outcomes, and

(vii) protects and enhances places and items of environmental, archaeological, cultural or heritage significance, including Aboriginal relics and places, and

(viii) avoids or minimises the impact of development on drinking and environmental water catchments to protect and enhance water availability and safety for human consumption and the maintenance of environmental and recreational values, and

(ix) strengthens and promotes employment land opportunities and appropriate tourism development and growth, and

(x) creates resilience to natural hazards through local land use planning.

The proposal is considered to be consistent with the broad intent of the Lithgow LEP. The proposed facility provides necessary infrastructure that will assist to meet the demands arising from residential and commercial growth, and will assist in meeting the needs of local businesses and the surrounding areas. The proposal will ensure appropriate connectivity in the community, promoting a prosperous economy.

The proposal, while serving a residential area, is sited in proximity to a goods railway line, as well as an industrial area. Specific objectives of the locality, land use zone, and issues impacting on the site itself are discussed in further detail below.
The proposed facility will also be of assistance in emergency situations, providing direct access to emergency services in the even of road accidents, bushfires, and local emergencies.

11.2 Zoning

Lot A on DP 374075, described as 35-43 Cooerwull Road, Bowenfels, is classified as R2 – Low Density Residential, under the Lithgow Local Environmental Plan 2014.

Image 14: The Lithgow Local Environmental Plan 2014 Zoning R2 – Source*: The Lithgow LEP*

As the proposed facility at 35-43 Cooerwull Road is not classified as a 'low impact facility' under the *Telecommunications (Low Impact) Facilities Determination 1997*, consent is required for the use of the proposed facility.

R2 – Low Density Residential

The objectives of the R2 Low Density Residential zone are:

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To maintain or improve the water quality of receiving water catchments.

Due to their very specific use, a mobile telecommunications facility is rarely detailed in a zones objectives, nor is their permissibility clearly defined. In this instance, the specific area requiring mobile telecommunications service improvements is predominately residential.
In response to the R2 Low Density Residential zone objectives, the proposed mobile telecommunications facility will provide essential services (being mobile telecommunications and internet services) to the residents, businesses, and home based occupations within the surrounding area. The facility will also service the surrounding roadways and public recreation and tourist areas. Fast, reliable and consistent mobile telecommunications have quickly become an everyday expectation of both business and residential areas. The surrounding suburbs will benefit greatly by the proximity to these improved mobile telecommunications services, including that of 5G Network technology. The proposed facility will also increase the availability of a robust telecommunications network, which is of increasing importance during emergencies.
The proposed facility will not adversely effect the surrounding land uses or impact the development of nearby land. It will also ensure as limited visual impact as is possible, utilising a slim structure located in close proximity to an existing commercial use, as well as the railway line. The proposed facility utilises the existing mature vegetation nearby to assist in screening portions of the pole to some degree, and it will be seen in conjunction with existing vertical elements in the environment, including the railway line and the adjoining industrial operations.

11.3 The Lithgow Development Control Plan (DCP) 2021

The Lithgow Development Control Plan (DCP) 2021 applies to all land within the Lithgow Local Government Area that is zoned under the Lithgow Local Environmental Plan 2014.
A number of sections of the DCP 2021 broadly apply to this proposal, and while some are mentioned elsewhere in this report, the primary chapters are summarised below:

Part 2: Site Requirements

The site requirements chapter of the Lithgow DCP is relevant to all types of development.
While the proposed telecommunications facility is rarely defined in such documents, this Statement of Environmental Effects has attempted to cover off the majority of aspects of Part 2 of the DCP. As the proposed facility is a standalone structure which does not require sewer or water services, and does not involve a habitable structure, most sections of this DCP are irrelevant to the proposal.

The proposal, and this Statement, has taken into consideration vehicle access and parking, a site analysis, waste management (as once constructed, the facility will produce no waste), noise and vibration, as well as visual impact.

Part 7: Commercial, Community and Industrial Development

While not specifically referenced in this section of the DCP, it can be expected that a telecommunications facility would, broadly, fit into this section.

The proposed facility will assist in contributing to the economic growth of the LGA, by supporting the ongoing and increasing use of mobile telecommunications services by local residents and tourists alike. Local businesses and commerce will also benefit from the reception of a robust telecommunications network, ensuring availability of mobile services at all times. This will also ensure that home operated businesses also receive the most up to date technological services.

The proposed facility, while intended to service a significantly residential population, is being sited in an existing commercial property, directly adjacent to a railway line and industrial premises further south. The facility is the shortest possible structure to achieve mobile telecommunications service

improvements to the area, and will utilise existing vegetation on site to reduce visual impact where possible.
While it is accepted that telecommunications facilities are visible structures, it is their inherent nature that they have to be taller than the surrounding area to ensure coverage to the widest possible area. Using a slimline monopole, and siting adjacent to an existing commercial use, it is considered that the siting of this proposal is appropriate in this instance. The siting of the facility ensures that significant views are not impacted upon, and heritage items and places in the surrounding area will not be adversely affected.

11.4 Miscellaneous / Local Provisions

11.4.1 Heritage

In order to determine any possible natural or cultural values of state or national significance associated with the site, a search was conducted through the relevant Heritage Registers. While there are heritage items in the vicinity, there are none immediately adjoining, and they will not be impacted upon. There are no other known items of cultural, historical or environmental heritage significance located in the immediate vicinity of the proposed site that will be impacted upon by this proposal.

Should any item of Aboriginal or archeological heritage/significance be discovered throughout the excavation and installation process, all works on site will cease, and appropriate measures undertaken to fully investigate the item. A search of the Aboriginal Heritage Information Management System (AHIMS) has shown there are no items of Aboriginal significance in the vicinity of the subject site or the subject property, see Appendix 2.

11.4.2 Erosion, Sedimentation Control and Waste Management

All erosion and sediment control mitigation measures will be detailed in final construction plans and will comply with the Building Code of Australia and local Council standards. On completion of the installation, the site will be restored and reinstated to an appropriate standard. No waste which requires collection or disposal will be generated by the operation of the facility. While some spoil will be excavated for the construction of the facility, much of this will be reused, or recycled.

11.4.3 Traffic Generation

After the construction period, the only traffic generated by the base station will be that associated with maintenance vehicles. In this respect, it is estimated that maintenance of the facility will generate between 4 and 6 visits per year and it will remain unattended at all other times. The traffic generation will therefore be minimal and not sufficient to create any adverse impacts in this regard or by creating a demand for parking facilities.

11.4.4 Noise

Noise and vibration emissions associated with the proposed facility will be limited to the initial construction phase. There will be some low-level noise from the ongoing operation of air conditioning equipment associated with the equipment shelter, once installed. Noise emanating from the air conditioning equipment is at a comparable level to a domestic air conditioning installation, and will generally accord with the background noise levels prescribed by Australian Standard AS1055.

11.4.5 Flora and Fauna

The site has been chosen as it takes advantage of an area that has been previously disturbed and is not covered by vegetation or trees. No vegetation is required to be removed as part of this proposal.

The surrounding vegetation and mature trees are to be retained specifically to ensure visual impact is mitigated as much as is possible.

11.4.6 Airport Environs

The proposed site location is not considered to be within the boundaries of any nearby airport environs, and does not penetrate any Obstacle Limitation Surfaces. Should there be a concern in regards to proximity to an OLS, it is accepted that adherence to relevant CASA regulations would be necessary.

11.4.7 Bushfire Prone Land

The subject property is noted as being Bushfire Prone Land as a 'Vegetation Buffer'. The proposed facility will not increase the possibility of a bushfire on the subject property, nor will it exacerbate any possible bushfire activity. In contrast, mobile telecommunications facilities are able to be utilised to provide early warning of any approaching natural disaster or problematic event.

12 Conclusion

The proposed telecommunications facility at 35-43 Cooerwull Road, Bowenfels, will form an integral part of the Carriers mobile telecommunications networks in the greater Lithgow Local Government Area. As part of all Carrier's network improvements, reconfiguration, and expansion into the 5G Network, the new facility is required to ensure the community surrounding the site locality receive high quality and reliable mobile telecommunications services. This includes the rural-residential areas, local businesses and nearby roadways. With the recent COVID-19 situation world-wide, the importance of reliable mobile telecommunications services to local business and home-based enterprises has been shown to be paramount, and this facility will further enhance these services in this area.

There is strong State policy support for telecommunications facilities if, when balancing improved telecommunications services with environmental impact, a particular proposal provides a net community benefit. It is strongly considered that there are significant benefits to the locality surrounding the proposed facility.

The site has a number of important characteristics that make it suitable for the construction of a new telecommunications facility in the manner proposed. Significantly, the site provides the appropriate location (centrally located) in an area that is deficient of existing telecommunications facility. The proposed facility will adequately service the objectives of Carriers existing and future networks, including 5G. The location also ensures the facility can effectively integrate into the existing network of sites. The vegetation screening surrounding the proposed site location, together with the use of a slimline monopole and siting in proximity to the railway line and industrial operations, further minimises the visual impact of such a facility.

Waveconn have undertaken an assessment of the relevant matters as required by Commonwealth, State, and Local planning policies, including the Telecommunications Act 1997, and the Lithgow Local Environmental Plan 2014. The proposal is considered appropriate in light of the relevant legislative, environmental, technical, radio coverage and public safety requirements.

The proposed facility is considered appropriate for the subject site for the following reasons:

- The facility is located specifically to provide reliable mobile phone service to the area surrounding the site, including the residential, businesses, industrial areas and roadways, as well as the public recreation spaces and tourist attractions in the surrounds;
- The use of a slimline monopole with minimal bulk ensures that visual impact is mitigated;
- The proposed facility will be sited in proximity to an existing industrial use and railway line, to further ensure it blends with the surrounding area and does not appear entirely out of place;
- The proposal is consistent with the relevant provisions of the Lithgow Local Environmental Plan and Development Control Plan;
- The facility will ensure the provision of improved mobile phone coverage and competition in the area;
- Emissions from the proposed facility will always be significantly below the Australian Radiation Protection and Nuclear Safety Agency standards adopted by the Australian Communications and Media Authority.

The assessment of the proposal demonstrates that the proposal represents sound and proper town planning and it is respectively requested that consent is granted for this development application.

Appendix 1 – Site Plans

Appendix 2 – AHIMS Result

Appendix 3 – Photomontages