# Attachment 5 to Item 2.1.1.

## Statement of Environmental Effects

Date of meeting: 20 June 2024
Location: Council Chambers or audio-visual link
Time: 10am

# DEVELOPMENT APPLICATION FOR A NEW TELECOMMUNICATIONS FACILITY TO HAWKESBURY CITY COUNCIL


**Proposed Telstra Mobile Telecommunications Base Station at:**

**1341 St Albans Road, CENTRAL MACDONALD NSW 2775**

**Lot 2/DP630711**

# *Document Control Record*

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|---|---|---|---|
| **Document Description** | SEE: Proposed Telstra Mobile Telecommunications Base Station at 1341 St Albans Road, CENTRAL MACDONALD NSW 2775 | | |
| **Site No.** | 366921 | **Site Name** | Central MacDonald |

| | **Name** | **Signed** | **Date** |
|---|---|---|---|
| **prepared by** | Victor Ding | [redacted] | 25/01/2024 |
| **File Location** | | | |
| **Document Status** | Final | | |

| **Prepared for** | **Prepared by:** |
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## APPENDICES

# 1 Introduction

## 1.1 Executive Summary

This Statement of Environmental Effects (SEE) has been prepared by Site Logic on behalf of Amplitel, part of the Telstra group. The proposed site is located at 1341 St Albans Road, Central MacDonald NSW 2775 ('the facility'). The proposed facility will enable Telstra as a licensed carrier to provide adequate coverage to their customers in the locality.

The Central MacDonald area currently suffers from insufficient mobile coverage and poor capacity. Telstra regularly tests the efficiency of its existing networks and has identified severe shortcomings in Central MacDonald. The shortcomings are worsened by the increasing demand for mobile network services and data capacity.

Telstra propose to replace the existing small cell facility at site and construct a new monopole telecommunications facility to host Telstra equipment at 1341 St Albans Road, Central MacDonald NSW 2775. The new facility will deliver improved coverage and capacity to the Central MacDonald area. This deployment is part of the Federal Government initiative, Black Summer Bushfire Recovery Program, and ensures sufficient mobile coverage during a potential natural disaster.

To meet radio frequency objectives at this location, the base station will require a 40m monopole with six panel antennas. Radio Equipment will be housed in a new ground level equipment shelter located in a secure compound.

This SEE has been prepared in accordance with relevant statutory and regulatory requirements. Potential impacts associated with this development are expected to be minimal due to the small footprint and minimal disturbance of the area caused by the facility.

In this instance, the socio-economic benefits to the local community outweigh the perceived impact of such development and include:

- Providing good network coverage and capacity, including in-building coverage, to the community.
- Meeting the community's increasing demand for quality and reliable mobile phone service.
- Providing infrastructure to meet the community's social, business, and educational needs.
- Improving the reliability of Telstra's incoming and outgoing services to emergency services organizations and road users to assist in the event of an emergency.
- Increasing the level of competition in the Telecommunications, resulting in competitive prices, economic efficiency, and increased consumer choice.

## 1.2 Purpose of the Development Application

This SEE accompanies a Development Application (DA) for the installation of the facility.

The proposed base station will improve coverage and capacity to the local community and home businesses in the area who require mobile and wireless broadband services. This deployment is part of the Federal Government initiative, Black Summer Bushfire Recovery Program, and ensures sufficient mobile coverage during a potential natural disaster.

The facility will bring the poor mobile services in Central MacDonald up to date with most urban areas in the state, where reliable mobile coverage has become a basic expectation. In turn this will enable Telstra to continue to enhance and expand its mobile services to customers in the area.

# 2 The Proposed Facility and Background

## 2.1 Description of the Proposal

Approval is sought for the use and development of a “telecommunications facility” as defined by the Telecommunications Act 1997, comprising a 40m monopole at 1341 St Albans Road, Central MacDonald NSW 2775. This new facility will replace the existing small cell facility at site currently.


*Figure 1: Site Location in Context of Area*

The proposed design represents the best solution available to Telstra, incorporating the minimum height necessary to achieve the coverage objectives, and the most sympathetic design to reduce visual impact. Noting the site already houses a small cell facility where the immediate surrounding area has become accustomed to a vertical structure such as this in the landscape. An extensive design process has been undertaken to ensure that the height of the proposed facility is the minimum required to ensure the network coverage objectives are achieved. A detailed description of the components of the facility are as follows with screenshot shown at **Figure 2** (also see attached design drawings in **Appendix A**).

**Installation details**

This application seeks a development approval for the installation of:

- a new 40m Amplitel monopole;
- a triangular headframe onto the proposed monopole;
- six (6) Telstra panel antennas onto the proposed headframe;
- a Telstra ground-based equipment shelter;
- an existing Telstra access track upgrade, and installation of compound security fence and double access gate;
- ancillary equipment including feeder cables, antenna mounts, tower mounted amplifiers, remote radio units, GPS antenna, electrical works, cable trays and works within the proposed shelter; and
- removal of small cell facility (20m monopole, omni antenna, ground-based satellite dish with mount and outdoor cabinet).

The total footprint for the proposed facility would be 15m x 10m.

**Access**

Access to the site will be via an existing access track off St Albans Road which has been used to access the small cell facility to date. The existing access track will require an upgrade, including new crossover with culvert, refer to **Appendix A**. Construction and operational access will be via the same existing route. Given the location of the proposal and the proximity to the road no significant disturbance is proposed for the access way.

In unusual situations where work or maintenance is required on the upper portion of the monopole (e.g. antenna modifications) a cherry picker will be used. Mobile phone base stations are unmanned, of low maintenance and are mostly operated remotely. As such, operational visits to the site will be minimal and approximately only 4-6 times per year for maintenance purposes.

**Power and Fibre**

It is proposed to obtain power supply to the site via an underground route from the nearby electricity substation. **Appendix A** shows the site design and layout plan along with the indicative power and fibre route. The exact power source and route will be confirmed during the detailed design stage of the proposal.

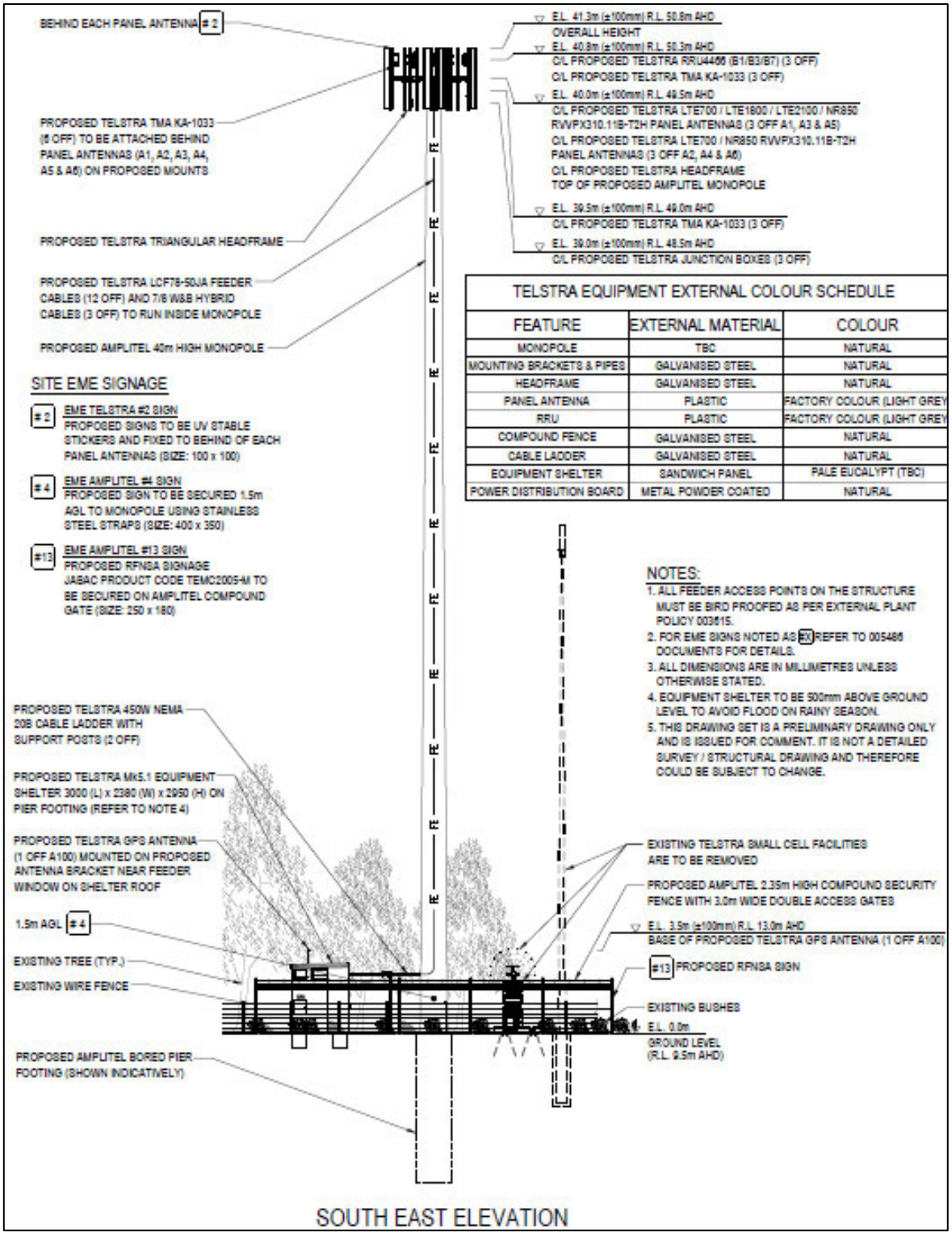


*Figure 2: Preliminary Drawing Screenshot*

## 2.2 Construction of the Facility

Construction activities will involve the following:

- Excavation of the monopole foundation.
- Delivery and pouring of concrete on site for the monopole and equipment shelter.
- Installation of conduit within trenches, followed by installation of cables within conduits.
- Delivery of the monopole sections to site.
- Separate installation of each monopole section.
- Attachment of antenna mounts, cables, cable ladder to units and antenna on to the monopole.
- Installation of the earth grid and connection of the base station to the electrical supply and optical fibre cables.
- Installation and commissioning of the base station radio equipment.
- Removal/decommissioning of the small cell facility.

The daily construction process will require three to six workers on site and an average of four to six vehicle movements. The general construction timeframe, weather dependent, is approximately 5-6 weeks.

## 2.3 Need for Proposal

The proposal is intended to improve mobile network coverage and capacity in Central MacDonald including surrounding area. These areas are currently experiencing poor coverage, low throughput, and high call drops. This deployment is part of the Federal Government initiative, Black summer Bushfire Recovery Programme, and ensures sufficient mobile coverage during a potential natural disaster.

In some areas surrounding the proposed facility users will currently see they have coverage via the “bars” on their phone. However, this relates solely to the ability to make/receive a call. Devices are data hungry; users are now demanding more services, from more locations for indoor and outdoor coverage along with indoor video data streaming. Users also demand the ability to travel without mobile voice and data interruptions. There is such high demand for these services that the provision of telecommunications infrastructure can struggle to meet these demands. If this issue remains unresolved communities will continue experiencing slower download and upload speeds/internet browsing and inability to make/receive calls.

Mobile networks are like roads, when traffic increases, upgrades are needed to relieve congestion. Congestion is relieved by making changes to existing base stations or adding new base stations in areas with coverage issues. Once Telstra identifies the need for improved network performance in an area, the optimisation of existing Telstra facilities throughout the region is explored and undertaken where required. In some cases, this option resolves network deficiencies in an area. However, in this situation the optimisation of surrounding facilities does not achieve a satisfactory outcome for the network. Telstra have undertaken investigations into the use of other Carrier facilities within the area. In this instance existing facilities were too far away to provide coverage objectives for the given area. Alternative candidates are addressed in Section 3 of this report.

Telecommunications carriers such as Telstra must continue to provide a level of service that customers have come to expect. This development is therefore required to meet the obligation of licensed telecommunications carriers to provide adequate coverage and service to its customers. The new facility will alleviate service issues in the Central MacDonald area.

## 2.4 Consequences for not proceeding

The consequences of the proposal not proceeding would be:

- continued poor coverage in Central Macdonald, specifically in relation to natural disasters;
- continued poor telecommunications services in general locality, including slow data speeds, poor reception and unexpected call dropouts;
- lack of improvement in most up-to-date mobile network services including mobile broadband in the area; and
- reduced competition in the telecommunications industry, potentially resulting in uncompetitive practices, increased costs to consumers and reduced levels of service to customers.

# 3 Site Selection and Justification

## 3.1 Process of Site Selection

As part of Telstra's site acquisition procedure, a comprehensive site selection process has been undertaken to find an appropriate location for the new facility in Central MacDonald.

Site selection occurred based on the following:

- the site currently houses telecommunications equipment in the form of a small cell facility;
- the site is appropriately located and sited to minimise visual impact on the immediate and surrounding area;
- the site will achieve the required coverage objectives for the area;
- the proposal operates within the regulatory framework of Commonwealth, State and Local Government; and
- the facility operates within all current and relevant standards and is regulated by the Australian Communications and Media Authority.

As Planning for a new telecommunications facility is a complex process, site selection is also based on several key issues including:

- radiofrequency coverage;
- low-impact and co-location opportunities;
- availability of suitable sites;
- planning, environmental and heritage considerations;
- engineering criteria; and
- construction considerations.

Several alternative sites were examined within the search area about each site's ability to meet the coverage objectives and site considerations listed above. Following extensive scoping, the subject site was selected as it successfully met key objective criteria. **Figure 3** highlights alternate sites considered.


*Figure 3: All potential site candidates, including the successful candidate shown as 'Prime Candidate (A)*

Carriers seek to avoid residential areas and sensitive land uses where it is possible to do so, although this must be weighed against build implications and coverage feasibility provisions. In this case, sensitive uses have been avoided by locating the facility approximately 200m away from the nearest residence.

Table 1 lists the considered candidates and the reason the sites were discounted.

| **Table 1 – Site Selection Candidates** | |
|---|---|
| **Site** | **Opportunities and Constraints** |
| **Candidate A: Proposed Monopole**<br>**1341 St Albans Road, Central MacDonald NSW 2775**<br>**(-33.320613°, 150.971250°)** | Candidate A was selected as the prime candidate based on several considerations outlined within this report. The location already houses a small cell facility. In addition, the location met coverage objectives and tenure could be secured. It was also considered that a facility in this location would not have a detrimental effect on the visual amenity of the area. More detail is provided at the end of this section. |
| Candidate B: Proposed Monopole<br>1225 St Albans Road, Central Macdonald<br>(-33.325244°, 150.979691°) | This site was not progressed based on it being too low in ground elevation and failed to meet RF objectives. To meet RF objectives a taller structure (>40m) would have been required. Further, the site is located within a flood prone area, where the ground level equipment would have had to be elevated on a platform as a mitigation measure increasing the overall bulk and scale of the facility. |
| Candidate C: Proposed Monopole<br>1246 Settlers Road, Wrights Creek<br>(-33.322134°,150.979328°) | This site was not progressed based on it being too low in ground elevation and failed to meet RF objectives. To meet RF objectives a taller structure (>40m) would have been required. Further, the site is located within a flood prone area, where the ground level equipment would have had to be elevated on a platform as a mitigation measure increasing the overall bulk and scale of the facility. |
| Candidate D: Proposed Monopole<br>1202 Settlers Road, Wrights Creek<br>(-33.322871°, 150.979934°) | This site was not progressed based on it being too low in ground elevation and failed to meet RF objectives. To meet RF objectives a taller structure (>40m) would have been required. Further, the site is located within a flood prone area, where the ground level equipment would have had to be elevated on a platform as a mitigation measure increasing the overall bulk and scale of the facility. |
| Candidate E: Proposed Monopole<br>1233 St Albans Road, Central Macdonald<br>(-33.326468°, 150.976654°) | This site was not progressed due to the surrounding dense mature bushland which degrades mobile coverage performance where a taller structure (>40m) would have been required to clear vegetation obstacles. Further, it was identified any potential locations within this site had existing poor access where significant vegetation clearing would be required. Lastly, whilst not a determining factor in candidate site selection, the landowner whilst interested had annual rental expectations that were not commercially viable in deploying a facility at this location. |
| Candidate F: Proposed Monopole<br>1213 St Albans Road, Central Macdonald<br>(-33.327047, 150.977439) | This site was not progressed due to the surrounding tall dense mature bushland which degrades mobile coverage performance, where a taller structure (>40m) would have been required to clear vegetation obstacles. Further, it was identified any potential locations within this site had existing poor access where significant vegetation clearing would be required. Lastly, whilst not |

| | |
|---|---|
| | a determining factor in candidate site selection, the landowner whilst interested had annual rental expectations that were not commercially viable in deploying a facility at this location. |

Co-Location Opportunities

During the site selection process, opportunities for co-location of Telstra equipment were considered. Given the site is already housing a small cell facility, it is the most suitable choice in terms of replacing the existing small cell facility with the new proposed facility to minimise the introduction of completely new structures into the landscape. It is important to note that once deployed the new 40m monopole provides opportunities for other carriers, providers, and most importantly emergency service organisations to collocate in the future.

In terms of other colocation opportunities in the area, there were none deemed suitable to meet RF coverage objectives, within the area.

The site selection process also incorporates mandatory Deployment Code (C564:2020) activities which are undertaken to justify the proposed location of the subject site. This is inclusive of a “traffic light model” system which determines community-based sensitivities, within both social and legislative based frameworks.

The preferred site candidate at 1341 St Albans Road, Central MacDonald NSW 2775 was selected as the preferred site candidate for the following reasons:

- town planning considerations (such as zoning, surrounding land uses, environmental significance, compliance with the planning scheme and visual impact);
- visual impact – it is believed that the proposed site location will improve the visual amenity for the immediate neighbours. The existing small cell will be decommissioned as part of the development;
- the wider area of site is abundant with mature trees and understory vegetation, this vegetation will provide immediate screening of proposed development site from the locality more generally;
- the proposed monopole will result in minimal adverse impacts because of construction. Construction will be undertaken from within the property;
- existing access and sufficient car parking at site will reduce any impacts to traffic flow during the construction phase;
- the availability of viable connections to the power and transmission networks in the area;
- the location will offer a cost-effective site solution whilst maximising coverage and mobile phone service provisions within the identified locality; and
- tenure – obtaining an agreement with the landowner of the subject site provides surety in determining the location of a mobile phone base station. An agreement has been reached between the subject landowner and Telstra.

## 3.2 Site and Surrounds

The site houses an existing small cell facility situated on an unused portion of land within a rural lot at 1341 St Albans Road, Central MacDonald NSW 2775. Central MacDonald is a small rural town within the local government area of Hawkesbury City Council. It is located approximately 69kms northwest of Sydney inland from the Central Coast. The subject site is zoned C4 – Environmental Living under the Hawkesbury Local Environmental Plan (LEP) 2012. Land immediately surrounding the site is generally unimproved and clear of dense vegetation. The site adjoins the MacDonald Public School with the nearest residential property located approximately 125m northwest of the existing and proposed facility.


*Figure 4: Proposed Location of subject site at 1341 St Albans Road, Central MacDonald NSW 2775*

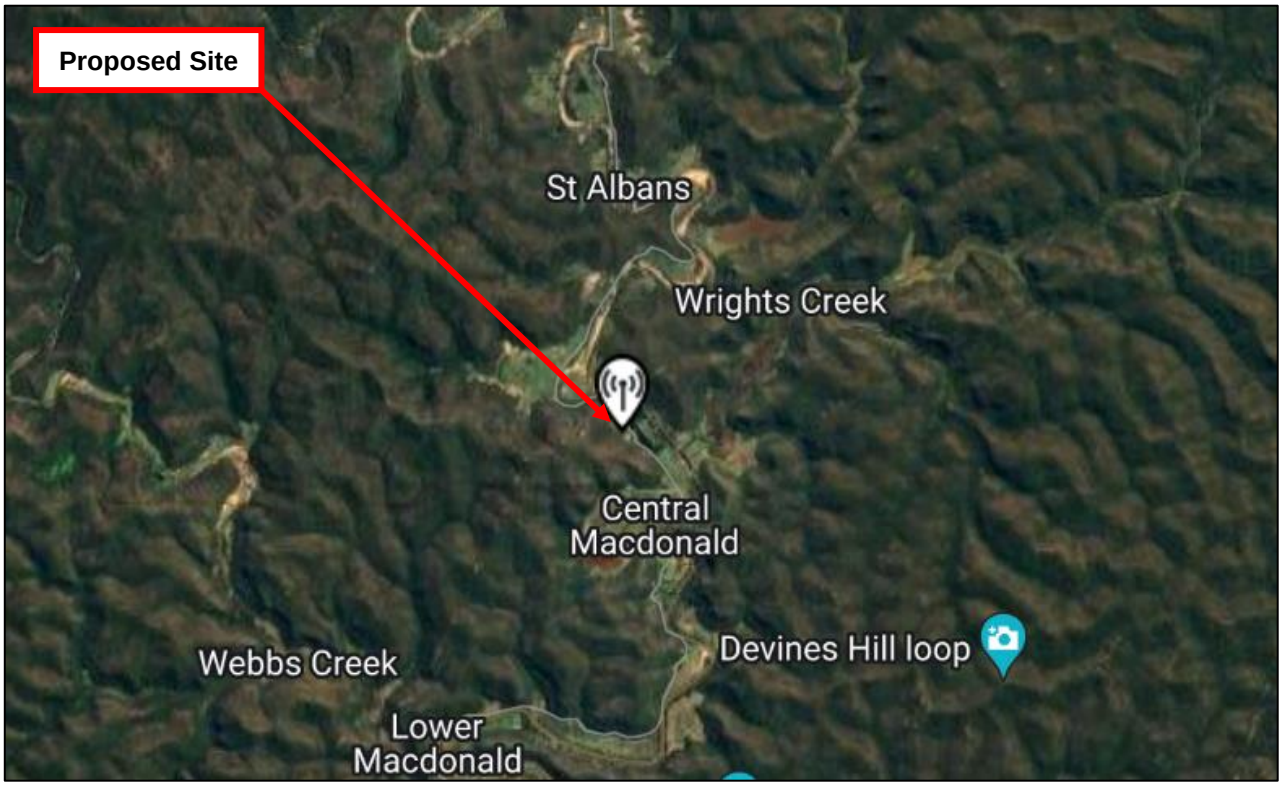


*Figure 5: Site Location in Context of Wider Area*

The proposed location will not impede on the current land use. Access to the facility will be obtained via an upgraded existing access track off St Albans Road. This is demonstrated in the proposal plans in **Appendix A.** Access to and from the subject site will be achieved for both construction and future maintenance visits, without any disruption to road use and traffic flow. Access both during construction and for future maintenance visits is further detailed within Section 5.5 of this report.

The area surrounding the site is largely rural with National Park areas. The nearest sensitive use is located adjacent to site being the MacDonald Public School south of the existing and the proposed facility. Other than this the site is well separated from specific sensitive land uses, such as childcare centres and hospitals, and other residential properties. It is considered

that the site will have minimal impact on the adjoining public school and existing views in the area, noting the site currently houses a 20m monopole as part of the small cell facility.

The proposed facility is located in such a way that it does not sit in the line of sight of residences. The proposed site is required to provide mobile voice and data coverage to the Central MacDonald area and surrounds and as such it is essential to locate the facility within the area. **Figures 4 and 5** illustrate the context and appearance of the subject site.


*Figure 6: Closest Residences to proposed facility are located approximately 125m northwest of site*

*Figure 7: Photo taken during a site visit showing the location of the existing small cell facility and proposed Telstra compound within a cleared portion of land*

*Figure 8: Photo taken during a site visit showing the location of the existing access and track to be upgraded from St Albans Road*

*Figure 9: Photo taken during a site visit showing the existing small cell facility on the fence line adjoining MacDonald Public School*

# 4. Environmental Assessment

Federal, State and Local legislation and guidelines have been created to guide the development of telecommunications infrastructure in Australia.

## 4.1 Commonwealth Legislation

### 4.1.1 Telecommunications Act 1997

The *Telecommunications Act 1997* (TA) came into operation in July 1997. The TA sets up a framework for regulating the actions of telecommunications carriers and service providers. Telstra is a licensed carrier under the TA. Schedule 3 – Carriers' powers and immunities, of the TA, specifies 'authorised activities' that a carrier is empowered to carry out without approval under NSW legislation. These activities include the inspection of land, and the installation and maintenance of certain facilities.

A Carrier's power to install a facility is contingent upon:

> *"the facility being a low-impact facility (as defined by the Telecommunications (Low-Impact Facilities) Determination 2020 (as amended))".*

In this case, the proposal involves the installation of a new monopole structure, and therefore does not constitute a low-impact facility under the *Telecommunications (Low-Impact Facilities) Determination 2020* (as amended). As the proposed facility does not meet the criteria mentioned above, Telstra is therefore not empowered to undertake the proposed works without approval under NSW State legislation and must obtain development consent from Hawkesbury City Council.

### 4.1.2 Telecommunications Code of Practice 2021

Under the *Telecommunications Act 1997* the Government established the Telecommunications Code of Practice 2021, which sets out the conditions under which a carrier must operate. Section 2.11 of the Telecommunications Code of Practice 2021 sets out the design, planning and installation requirements for the carriers to ensure the installation of facilities is in accordance with industry 'best practice'. This is required to:

> *"… minimise the potential degradation of the environment and the visual amenity associated with the facilities." [Section 2.11(3)]*

Best practice also involves the carrier complying with any relevant industry code or standard that is registered by the Australian Communications Authority (ACA) under Part 6 of the Act.

The siting and design of this proposal has taken place in accordance with Section 3 (Planning and Siting) of the Australian Standard, Siting of Radiocommunications Facilities (AS 3516.2). The proposed site and design were selected after extensive search and analysis of potential candidates and the site was considered to provide an optimal environmental and network solution. The proposed design achieves minimal visual impact while meeting the technical coverage requirements for the site.

On balance it is considered that the proposed site is an appropriate planning solution in accordance with site selection criteria expressed in the *Telecommunications Act 1997*, and the relevant legislative and regulative requirements of federal, state, and local authorities.

### 4.1.3 Deployment Code

The 'Mobile Phone Base Station Deployment Code' Communications Alliance Ltd Industry Code (C564:2020) is a code developed by a working committee with representatives from carriers, various levels of government, an industry group, and a community action group. The Code is designed to:

- allow the community and councils to have greater participation in decisions made by carriers when deploying mobile phone base stations; and
- provide greater transparency to local community and councils when a carrier is planning, selecting sites for, installing, and operating Mobile Phone Radiocommunications Infrastructure.

The code does not change any existing regulations at a federal or State level but supplements these regulations applying to telecommunications carriers, including Telstra. The code sets guidelines for site selection, community consultation, design, installation, and operation of telecommunication facilities.

Sections 4.1, 4.2 and 4.3 of the Deployment Code are specifically relevant for the new installation. These sections require completion of precautionary approach checklists for site selection, infrastructure design and site operation. Furthermore, it is a requirement for an Electromagnetic Energy (EME) Report to be prepared for all new sites.

In accordance with the Deployment Code requirements, the precautionary approach checklists have been duly completed and an EME report has been prepared for the site. The EME report included within **Appendix B** of this report. Further information on EME is within Section 5.10 of this report.

It is noted, no consultation external to that undertaken in the DA process is required under the Code.

#### 4.1.4 Civil Aviation Safety Regulations 1998

Under the Civil Aviation Safety Regulations (CASR) 1998 – 139.355 an aerodrome operator is required to have established an Obstacle Limitation Surface (OLS), CASR – 139.350 requires an aerodrome operator to notify the Civil Aviation Safety Authority (CASA) of any obstacles that affects the airspace within the vicinity of the aerodrome.

Any proposed facility should not penetrate any relevant Obstacle Limitations 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.

The site has not been identified as penetrating any relevant Obstacle Limitation Surface Maps.

## 4.2 STATE LEGISLATIVE CONTEXT

#### 4.2.1 Environmental Planning and Assessment Act 1979

Section 4.15 (formerly 79C) of the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979) outlines specific assessment criteria which must be addressed within the submission of a development application and the likely impacts of the development on the surrounding built and natural environs. This report seeks to demonstrate compliance with relevant legislation which pertains to the subject application and matters of consideration within the planning process to minimise adverse negative impacts of the development.

#### 4.2.2 State Environmental Planning Policy (Transport and Infrastructure) 2021

Given that the development is for a new mobile phone base station the primary legislation relevant to the proposal is State Environmental Planning Policy (Transport and Infrastructure) 2021 (“SEPP (T&I) 2021”). Items of compliance relating to the application and assessment of the proposal against the SEPP (T&I) 2021 have been outlined below.

Certain provisions are afforded within the SEPP (T&I) 2021 in relation to development of telecommunications infrastructure within New South Wales. Division 21 Telecommunications and other communications facilities and Schedule 4 of the SEPP (T&I) 2021 stipulate ways in which telecommunications development can be undertaken in any zone (with consent) and outlines prescriptive controls for works which can be installed as exempt or complying development.

This proposal however cannot be undertaken as exempt or complying development due to the nature and location of the proposal. As such, a development application is being sought with Hawkesbury City Council in accordance with clauses 2.140 and 2.143 of the SEPP (T&I) 2021 as outlined below:

Clause 2.140 of the SEPP (T&I) 2021 defines a “Telecommunications Facility” 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.

Clause 2.143(1) states that:

*“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.”*

Through the provisions outlined above, telecommunications facilities are permissible in any zone, including the C4 – Environmental Living zone on the condition that consent is obtained by the relevant determining authority, in this instance being Hawkesbury City Council.

Furthermore, Clause 2.143(2) states:

> *"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 Planning Secretary for the purposes of this section and published in the Gazette."*

This proposal is consistent with the guidelines concerning site selection, design and construction as is stipulated within the *NSW Telecommunications Facilities Guideline, Including Broadband (October 2020).* Compliance with the requirements specified within this guideline is addressed in Table 2 below.

| **Table 2 – Compliance with NSW Telecommunications Facilities Guideline** | |
|---|---|
| **Principle 1 – Design and site telecommunications facilities to minimise visual impact.** | |
| **Principle** | **Response** |
| *(a) As far as practical, integrate a telecommunications facility that is mounted on an existing building or structure with the design and appearance of the building or structure.* | Not applicable given the proposal is for a new telecommunications facility. Section 3 of this planning report details the candidate selection process including alternative sites that were considered as part of the assessment. |
| *(b) Minimise the visual impact of telecommunications facilities, reduce visual clutter (particularly on tops of buildings) and ensure physical dimensions (including support mounts) are sympathetic to the scale and height of the building to which it is to be attached and to adjacent buildings.* | An assessment of the relevant impacts of the proposal has been demonstrated within the Visual Impact Assessment in Section 5.<br><br>The proposal has been situated within a wider heavily vegetated area with other overhead infrastructure is currently located, also noting the site currently houses an existing 20m monopole small cell facility.<br><br>The existing small cell facility will be decommissioned to restrict the introduction of additional vertical objects in the landscape, thus maintaining the status quo, albeit a taller structure required to maintain operational necessities. It is considered that the proposal will not detrimentally impact on the overall landscape vista encompassed by the location.<br><br>Visual impacts are considered mitigated due to the existing mature vegetation providing natural screening and vertical infrastructure in the vicinity of the subject location which creates a context for the facility within the landscape. It is not considered that the tower will be visually dominant to road users along nearby roads due to the extensive mature vegetation established within the area.<br><br>Therefore, it is considered that the proposed facility is appropriately located in the setting and will be well screened by existing vegetation at ground level at a site where vertical obtrusions currently reside, rescinding any adverse visual impacts for surrounding land users. |
| *(c) If a telecommunications facility protrudes from a building or structure and is predominantly seen against the sky, either match the prevailing colour of the host* | The proposed tower is situated on a cleared, disturbed parcel of land.<br><br>The proposal is a standalone structure made of |

| | |
|---|---|
| *building or structure or use a neutral colour such as pale grey.* | concrete.<br><br>Antennas and ancillary equipment on the headframe will be a neutral grey colour to best blend with the sky background. |
| *(d) Where possible and practical, screen or house ancillary facilities using the same colour as the prevailing background and consider using existing vegetation or new landscaping.* | The proposed equipment shelter will be screened by existing vegetation to best blend with the vegetation at ground level. Additionally, it will be finished with neutral colouring to further reduce the impact. |
| *(e) Locate and design a telecommunications facility in a way that responds to its setting (rural, residential, industrial, or commercial).* | The site has been selected within a lot hosting an existing small cell communications facility. This existing facility will be decommissioned, thus restricting additional vertical objects within the locality. |
| *(f) Site and design a telecommunications facility located on or adjacent to a listed heritage item or within a heritage conservation area with external colours, finishes and scale sympathetic to the heritage item or conservation area.* | Not applicable. The site is not located on or adjacent to a heritage item and/or heritage conservation area. |
| *(g) Locate telecommunications facilities to minimise or avoid obstructing significant views of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land.* | As demonstrated within the Visual Impact Assessment within Section 5 of this document, the proposal will not obstruct any significant views, vistas, heritage items, landmarks, panoramas or generate any adverse visual impacts for the surrounding land uses. |
| *(h) Consult with relevant council when proposing pruning, lopping, or removing any tree or vegetation. Obtain a tree preservation order, permit or development consent if required.* | Not applicable. No pruning, lopping, of trees subject to a Tree Preservation Order will be required to establish the compound. |
| *(i) Remove redundant telecommunications facilities and restore the site to the condition it was in prior to the facility's construction.* | As already mentioned throughout this report, the existing small cell facility will be decommissioned as part of this project. As the equipment is required to maintain operational services, the existing tower will not be decommissioned until the new tower is built. The build timeframe is typically only 5-6 weeks in total. |
| *(j) Remove redundant components of existing facilities after upgrades.* | Not applicable as this proposal is not an upgrade but the replacement of an existing small cell facility with a new taller facility. |
| *(k) Where possible, consolidate telecommunications facilities to reduce visual clutter and work with other users on co-location sites to minimise cumulative visual impact.* | Section 3 of this planning report details the candidate selection process including colocation options which were nonexistent to provide the required RF coverage objectives. Further, it is important to note that once deployed the new 40m monopole provides opportunities for other carriers, providers, and most importantly emergency service organisations to collocate in the future. |
| *(l) Accord with all relevant industry design guides when siting and designing telecommunications facilities.* | The siting and design of the proposed telecommunications facility is generally compliant with the New South Wales Telecommunications Facility Guideline, as released by the NSW Department of Planning and Environment. |

| | |
|---|---|
| *(m) Assess potential visual impact in alternative site assessments.* | Section 3 of this planning report details the candidate selection process including existing facilities/structures that were considered as part of the assessment, including the visual impact of these alternative sites. |

| **Table 3 – Compliance with NSW Telecommunications Facilities Guideline** | |
|---|---|
| **Principle 2 – Co-locate telecommunications facilities wherever practical** | |
| **Principle** | **Response** |
| *(a) As far as practical, locate telecommunications lines underground or within an existing underground conduit or duct.* | All proposed conduits will be installed underground. |
| *(b) Where practical, co-locate or attach overhead lines, antennas and ancillary telecommunications facilities to existing buildings, public utility structures, poles, towers or other radiocommunications equipment to minimise clutter.* | There are no suitable co-location opportunities within the subject area as outlined in Section 3 of this report. |
| *(c) Consider extending an existing tower as a practical co-location solution to new towers.* | Not applicable. The proposal does not involve an extension of an existing structure but rather a new tower facility. The existing small cell facility is not an adequate structure to be extended to meet the required height to provide the required RF coverage objectives. |
| *(d) Demonstrate that co-location is not practicable1 if choosing not to co-locate a facility.* | There are no viable co-location opportunities within the surrounding locale as demonstrated within Section 3 of this report. |
| *(e) If choosing to co-locate, design, install and operate a telecommunications facility so that resultant cumulative levels of radio frequency emissions are within the maximum human exposure levels set out in RPS S-1.* | Not Applicable. The proposed site does not involve a co-location on an existing telecommunications facility. |

| **Table 4 – Compliance with NSW Telecommunications Facilities Guideline** | |
|---|---|
| **Principle 3 – Meet health standards for exposure to radio emissions** | |
| **Principle** | **Response** |
| *(a) Design, install and operate a telecommunications facility so that maximum human exposure levels to radiofrequency emissions comply with RPS S-1 (see Appendix C).* | It is the legal obligation for any carrier to ensure that any telecommunications equipment is operated within the human exposure limits within the Radio Protection Standard.<br><br>The maximum human exposure levels have been calculated to be 1.07% of the public exposure limit.<br><br>Refer to **Appendix B** for the complete EME Environmental Report. |
| *(b) Using the format required by ARPANSA, report on predicted levels of EME surrounding any development covered by the Industry Code C564:2020 Mobile Phone Base Station Deployment, and how the development will comply with ACMA safety limits and RPS S-1.* | An EME Environmental Report has been included within **Appendix B** of this document. The EME Environmental Report is in accordance with the format prescribed by Australian Radiation Protection Nuclear Safety Agency.<br><br>Additionally, the EME Environmental Report is a publicly accessible document which can be retrieved from: www.rfnsa.com.au/2775020 |

| Table 5 – Compliance with NSW Telecommunications Facilities Guideline | |
|---|---|
| **Principle 4 – Minimise disturbance and risk, and maximise compliance** | |
| **Principle** | **Response** |
| *(a) Ensure the siting and height of a telecommunications facility complies with the of the Commonwealth Civil Aviation Regulations 1998 and Airports (Protection of Airspace) Regulations 1996. Avoid penetrating any obstacle limitation surface (OLS) shown on a relevant OLS plan for an aerodrome or airport (as reported to the Civil Aviation Safety Authority) within 30 km of the proposed development.* | It The proposal is compliant with the *Civil Aviation Regulations 1988 and the Airports (Protection of Airspace) Regulations 1996.*<br><br>The proposal does not penetrate any Obstacle Limitation Surface. |
| *(b) Ensure no adverse radio frequency interference with any airport, port or Commonwealth defence navigational or communications equipment, including the Morundah Communication Facility, Riverina.* | The proposed equipment at the subject site is licensed as per ACMA regulations. As a result, there is to be no interference with other civil and military communications facilities. |
| *(c) Carry out the telecommunications facility and ancillary facilities in accordance with any manufacturer's installation specifications.* | The proposed equipment is to be installed as per the manufacturer's specifications. |
| *(d) Protect the structural integrity of any building or structure on which a telecommunications facility is erected.* | Not applicable. Proposal is a standalone structure. |
| *(e) Erect the telecommunications facility wholly within the boundaries of a property as approved by the relevant landowner.* | The proposed 15m x 10m lease area is to be located within the boundaries of the lot and will not encroach on surrounding property boundaries. |
| *(f) Ensure all construction of a telecommunications facility accords with Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom 2004), or its replacement.* | The construction of the proposal will adhere to and comply with the regulations set out within the Blue Book – 'Managing Urban Stormwater: Soils and Construction' (Landcom 2004). |
| *(g) Mitigate obstruction or risks to pedestrians or vehicles caused by the location of the facility, construction activity or materials used in construction.* | The site is not generally accessible by pedestrians or vehicles, and will be fenced during construction. |
| *(h) Where practical, carry out work at times that minimise disruption to adjoining properties and public access and restrict hours of work to 7.00am and 5.00pm, Mondays to Saturdays, with no work on Sundays and public holidays.* | Construction works will be conducted between 7.00am and 5.00pm, Mondays to Saturdays or as per the recommended hours stipulated by Council. Consultation with council and any affected properties will be undertaken throughout the construction processes. |
| *(i) Employ traffic control measures during construction in accordance with Australian Standard AS1742.3-2002 Manual of uniform traffic control devices – Part 3: Traffic control devices for works on roads.* | Any required traffic control will be conducted in accordance with the relevant Australian Standard S S1742.3-2002 Manual of uniform traffic control devices – Traffic control devices on roads |
| *(j) Guard open trenching in accordance with Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps.* | Open trenching for the installation of underground power and fibre will be executed in compliance with the Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps. |
| *(k) Minimise disturbance to flora and fauna and restore land to a condition similar to its condition before the work was carried out.* | Not applicable. The proposal will not impact any significant flora or fauna. |

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| *(l) Identify any potential impacts on threatened species and communities in consultation with relevant authorities and avoid disturbance to identified species and communities where possible.* | There will be no impact on threatened species or communities. |
| *(m) Identify the likelihood of harming an Aboriginal place and/or Aboriginal object and obtain approval from the Department of Premier and Cabinet if the impact is likely, or Aboriginal objects are found.* | Not Applicable. No items or areas of Aboriginal significance were identified as per the provided Basic AHIMS Search at **Appendix D.** |
| *(n) Reinstate, at your expense, street furniture, paving or other facilities removed or damaged during construction to at least the same condition as that prior to installation.* | Not applicable. The proposal will not impede on any street furniture, paving or other existing facilities. |

| **Table 6 – Compliance with NSW Telecommunications Facilities Guideline** | |
|---|---|
| **Principle 5 – Undertake an alternative site assessment for new mobile phone base stations** | |
| **Principle** | **Response** |
| *(a) Include adequate numbers of alternative sites in the alternative site assessment as a demonstration of good faith.* | Section 3 of this planning report details the candidate selection process including alternative sites that were considered as part of the assessment. |
| *(b) In addition to the new site selection matters in Section 4 of the Industry Code C564:2020 Mobile Phone Base Station Deployment:*<br>• *only include sites that meet coverage objectives, and that have been confirmed as available, with an owner agreeable to having the facility on their land.*<br>• *if the preferred site is a site owned by the Carrier, undertake a full assessment of the site.*<br>• *indicate the weight placed on selection criteria.*<br>• *undertake an assessment of each site before any site is dismissed.* | Section 3 of this planning report details the candidate selection process. Whilst several of the candidates did not meet the required RF coverage objectives, they would if the height of the proposed monopole which would have significant visual impact. Other candidates which did have interested landowners were dismissed given the extensive vegetation clearing required to provide access to any potential site locations. Lastly, whilst not a determining factor in candidate site selection, the landowner whilst interested had annual rental expectations that were not commercially viable in deploying a facility at this location. |

## 4.3 Local Legislation

### 4.3.1 Hawkesbury Local Environmental Plan 2012

The Local Environmental Plan (LEP) applicable to the subject proposal is the Hawkesbury Local Environmental Plan 2012. The subject LEP does not contain specific controls for Telecommunications facilities, however, will be assessed in accordance to the aims of the LEP.

In accordance with the LEP, a telecommunications facility is defined as the following:

> ***"Telecommunications facility** means:*
> *(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."*

### 4.3.2 Zoning

The subject lot is zoned as C4 – Environmental Living in accordance with The Hawkesbury Environmental Plan 2012 as shown in Figure 11 below. A telecommunications facility is a prohibited item within the subject zoning; however, consent is being sought pursuant to clauses 2.140 and 2.143 of the SEPP (T&I) 2021 which permits the installation of a telecommunications facility on any land. The proposal has been assessed against the objectives of the zone below in Table 7.

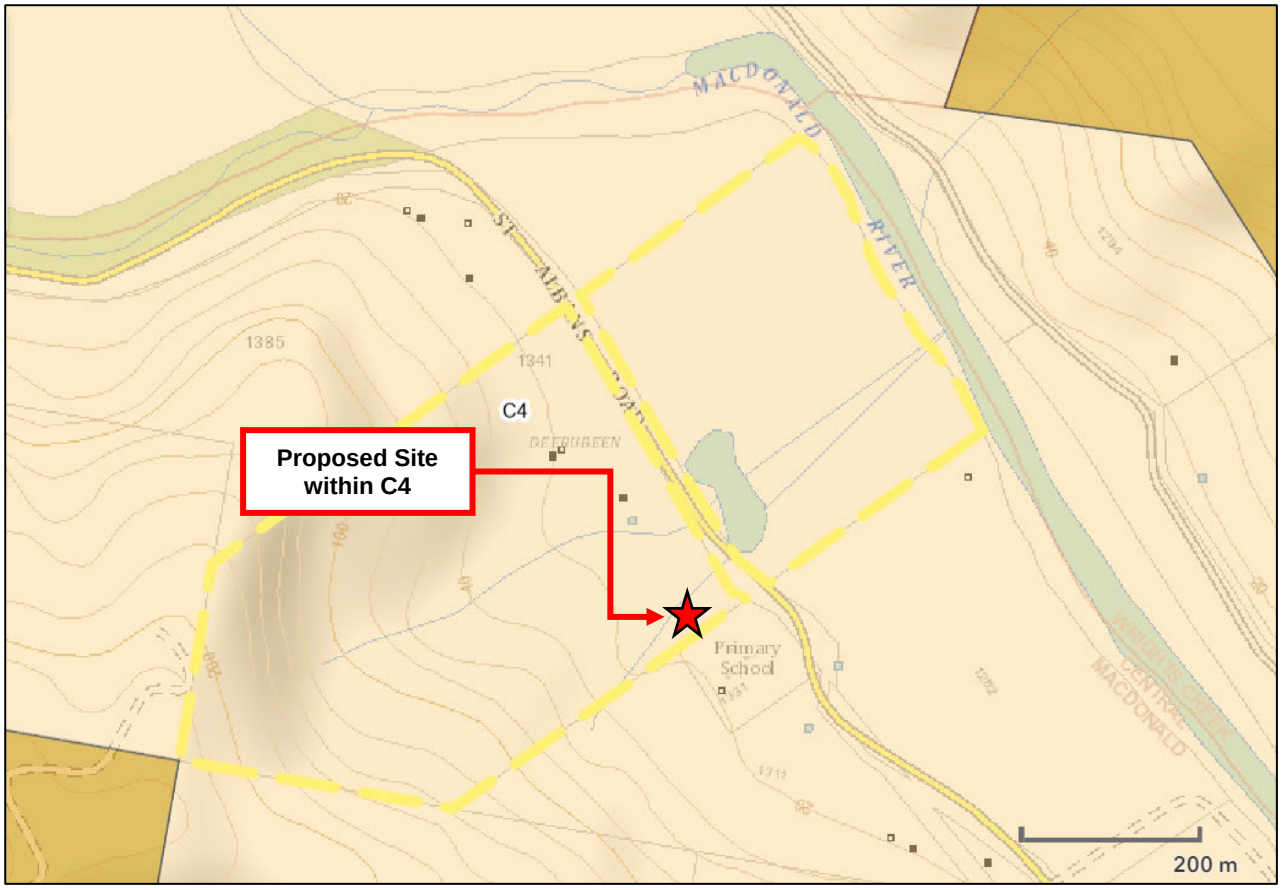


*Figure 10: Subject Site Zoning*

| **Table 7 - C4 – Environmental Living Zone** | |
|---|---|
| **Objectives:** | **Compliance:** |
| To provide for low-impact residential development in areas with special ecological, scientific, or aesthetic values. | Whilst not residential development, the proposed facility can be viewed as ancillary to all residential development. As reliable mobile telecommunications facilities are an essential service for any modern-day communities and can play a vital role in rural communities. Reliable telecommunications services assist day to day activities as well as means of facilitating essential service communications in time an emergency. It is considered that the proposal is compliant with this objective. |
| To ensure that residential development does not have an adverse effect on those values. | Whilst not residential development, the proposed site has been selected following a detailed candidate identification process outlined in Section3 of this report. The subject land has already been established with telecommunications infrastructure (small cell facility) and the proposal will help to maintain this connection, by providing much improved service directly accessible by the community.<br><br>The detailed siting is considered to be sympathetic to the character of Central Macdonald by utilizing the land currently used for the same use. Any visual change to the existing site |

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| | from vantage points along the public roads are considered minor given the extensive vegetation encircling the land. |
| To restrict development on land that is inappropriate for development because of its physical characteristics or bushfire risk. | The new facility will deliver improved coverage and capacity to the Central MacDonald area. This deployment is part of the Federal Government initiative, Black Summer Bushfire Recovery Program, and ensures sufficient mobile coverage during a potential natural disaster, including bushfire. Therefore, the proposal should be supported at this location for this reason. i.e. to provide connectivity during a bushfire in the area. |
| To ensure that land uses are compatible with existing infrastructure, services, and facilities and with the environmental capabilities of the land. | The final power design including the capacity of the supply will be confirmed in the detailed design phase, however, a major upgrade is not anticipated. Indicatively, it is proposed that the power connection to the new equipment shelter will be provided from the existing site power supply., to be confirmed during detailed design.<br><br>The unmanned facility does not require access to water or sewer infrastructure. The proposal will not alter stormwater runoff from the site, given the very minimal hardstand area.<br><br>The proposal will add to the essential infrastructure at and surrounding site, in terms of emergency assistance and overall connectivity of the region. |
| To encourage existing sustainable agricultural activities. | The proposal aims to deliver improved connectivity, particularly during in emergency situations and natural disasters. Given the relatively small footprint, with the land parcel already hosting a small cell facility, the proposal will not detract from agricultural activities on the subject site or surrounding areas. |
| To ensure that development does not create or contribute to rural land use conflicts. | As above, given the relatively small footprint at an existing facility (small cell), with the land parcel already hosting a small cell facility, the proposal will not create or contribute to rural land use conflicts on the subject site or surrounding areas. |
| To promote the conservation and enhancement of local native vegetation, including the habitat of threatened species, populations and ecological communities by encouraging development to occur in areas already cleared of vegetation | The proposed telecommunications facility will replace the existing small cell facility currently operating at site within a cleared, disturbed, area. As a result of this, there will be no requirement to undertake vegetation clearing and no impact to the habitat of threatened species, populations, and ecological communities. |
| To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways. | The proposal will not alter stormwater runoff from the site, given the very minimal hardstand area.<br><br>Erosion and sediment controls will be implemented prior to the commencement of any construction works and will be maintained throughout the construction phase to manage potential run off, water and air quality during construction.<br><br>The development will not induce any soil erosion or siltation. The proposal will immediately reinstate all sediment that is temporarily extracted to install the required structural footings. No external soil or sediment will be introduced to the existing vegetation. |

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| | Noting the proposed facility is to replace the existing small cell currently operating at site. |

### 4.3.3 Aims and Objectives

This Development Application will consider the type of development in respect to the aims and objectives of The Hawkesbury Local Environmental Plan 2012. It is believed that the proposal is wholly compliant with the aims of the LEP, based on the community benefit through an improvement of the existing infrastructure provision and associate wellbeing and economic benefits. An assessment against the relevant overall aims and objectives of the LEP has been listed within Table 8 below.

| **Table 8 - Hawkesbury Local Environmental Plan 2012** | |
|---|---|
| **Aims/Objectives:** | **Compliance:** |
| To protect and promote the use and development of land for arts and cultural activity, including music and other performance arts, | Not applicable. The proposal will not impede on any use of land for arts and or cultural activity. |
| To provide the mechanism for the management, orderly and economic development, and conservation of land in Hawkesbury, | The proposal seeks to retain an established use of the land and provide improved essential services to Central MacDonald and surrounding area in the form of a new mobile telecommunication facility. It is considered that this represents good economical and orderly development. |
| To provide appropriate land in area, location and quality for living, working and recreational activities and agricultural production, | Improved mobile telecommunication facilities assist to improve the quality of living, working and recreational activities within the Central MacDonald area. |
| To protect attractive landscapes and preserve places of natural beauty, including wetlands and waterways, | The visual impact of telecommunications facilities can be extensive. However, in this instance, considered site selection and design effectively limit the potential visual impact. This matter is outlined extensively in Section 5 of this report. |
| To protect and enhance the natural environment in Hawkesbury and to encourage ecologically sustainable development, | The proposed mobile telecommunications facility has been sited to limit potential environmental impacts. The footprint of the development is very small avoiding the removal any native vegetation to facilitate the development. Furthermore, there is sufficient on-site land to allow for natural filtration of stormwater generated from the development, so to effectively manage any risk of erosion to the land. |
| To conserve and enhance buildings, structures and sites of recognised significance that are part of the heritage of Hawkesbury for future generations, | The proposal has no material impact on buildings, structures of sites of heritage significance. |
| To provide opportunities for the provision of secure, appropriate, and affordable housing in a variety of types and tenures for all income groups in Hawkesbury, | Not applicable. The proposal will not impede on any use of land for residential development. |

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| To encourage tourism-related development that will not have significant adverse environmental effects or conflict with other land uses in the locality. | Mobile telecommunications services can help encourage tourism and related development.<br><br>The detailed siting of the proposed development seeks to mitigate potential significant environmental effects through considered site selection and design as outlined in this report. |

**4.3.4 Overlays**

The proposed development is identified as Bushfire Prone Land (vegetation buffer) planning overlay under the Hawkesbury Local Environmental Plan 2012.

The proposed facility will not result in unacceptable risk from bushfire to persons or property. The Central MacDonald area in its entirety including the subject site is identified as being Bushfire Prone Land (Vegetation Buffer). The subject site has been located at the existing small cell facility site towards the St Albans Road frontage and achieves a 10m vegetative separation from the west (rear of the land), where the contiguous vegetation begins. The established trees along the street frontage and public-school boundary are to be retained, fundamental to the natural screening of the development.

The land has been previous cleared for agricultural purposes with only remnant mature vegetation at the western and southwestern property boundary. Therefore, the subject site has sufficient Asset Protection Zones (APZ) in place, noting the surrounding broader area is cleared, disturbed, rural, land in nature, and a small cell facility is currently operating at site.

The telecommunications facility is unmanned and remotely operated so it does not pose a bushfire risk to human life. Further, the facility is prefabricated and designed in accordance with the Building Code of Australia and Australian Standards and is intended to serve the purpose of providing critical communications to the public and the emergency services during times of natural disasters including bushfires.

For further assessment regarding the Bushfire Prone Land (vegetation buffer), please refer to **Appendix F – Bushfire Assessment Statement**.

The proposed development is located within the area affected by the 1 in 100-year flood and subject to Council's Flood Policy 2020 and Associated Schedule of Flood Related Development Controls. Please see refer to **Appendix G – Flood Assessment.** Within the Flood Assessment, the key items to be addressed have also been captured below and responded to.

**Hawkesbury LEP 2012 Clause 5.21 Flood Planning:**

*2(a) is compatible with the flood function and behaviour on the land:*

Based on the flood assessment the development will not have an impact on local flood behaviour because it is located in a backwater area.

*2(d) incorporates appropriate measures to manage risk to life in the event of a flood*

The proposed development will not increase the frequency with which people may be on site, therefore a Flood Emergency Response Plan is not required. The telecommunications facility is unmanned and remotely operated so it does not pose a bushfire risk to human life. The equipment would require maintenance visits approximately 4-6 times per year.

*2(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses.*

The management of any potential environmental impacts will be managed through the Construction Environment Management Plan package required for construction, which specific requirements and mitigation measures can be conditioned by Council, if needed.

*3(d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion*.

Alternative locations for the proposed redevelopment outside the floodplain or above the FPL have been not considered, as cannot deliver the required RF objectives. Refer to Section 3 for more information. Flooding has been considered when designing the proposed redevelopment, as per the Hawkesbury City Council Flood Policy 2020.

**Section D of The Schedule – Development Controls:**

*H5.18 Additions and alterations to, or the redevelopment of, existing lawful incompatible development must not be located withing a higher Hazard Category that that in which the existing development is situated.*

The proposed replacement facility is approximately in the same location within the lot based on the flood data provided by Council and the local topography suggest that they are likely subjected to the same hydraulic hazard category H5 (conservative assessment) or H4. Therefore further detailed flood is not required to demonstrate that the same hazard category applies to the existing and new development (replacement facility).

*H5.19 The redevelopment of existing lawful incompatible development must, as far as practicable, be designed, located and constructed to minimise the impacts of flooding on the building and improve risk to life factors when compared to that of the existing development.*

The proposed development will be designed and engineered to meet this criterion and can be conditioned by Council accordingly, if required.

*H5.20 Additions to, or the redevelopment of existing lawful Incompatible Development must not be located within a floodway area*

Flood function classification was not provided by Council, however the analysis of the local topography suggests that the parts of the proposed redevelopment falling outside the footprint of the original development are not located in the main flow path, but in a minor backwater area. Based on the Flood assessment the development will not have an impact on local flood behaviour because it is located in a backwater area. Therefore further detailed flood is not required to demonstrate that the same hazard category applies to the existing and new development (replacement facility).

*H5.32 Where the lowest floor area is elevated above ground level (where raised building construction is used), the undercroft area must not be enclosed. No walls, doors, blockwork, cladding or the like is to be affixed around or within the undercroft area. Decorative features will be considered on merit*

The proposed replacement facility includes construction of an equipment shelter which will be constructed on 500mm piers – the undercroft area will not be enclosed.

*H5.36 Importation of fill to the land/property and/or excavation works, are not permitted, other than to facilitate development for the purposes of environmental protection works, bank restoration/stabilisation works, boat ramps.*

The proposed replacement facility includes upgrading of the access track including minor works of “leveling up” with St. Albans Road. The management of any potential environmental impacts will be managed through the Construction Environment Management Plan package required for construction, which specific requirements and mitigation measures can be conditioned by Council, if needed.

*H5.37 A balance of cut and fill must be used on the site to create a level building platform or driveway access on land. Cut and fill must not exceed a depth of 1 metre of cut or 1 metre of fill in these situations.*

The proposed replacement facility includes upgrading of the access track including minor works of “leveling up” with St. Albans Road. The management of any potential environmental impacts will be managed through the Construction Environment Management Plan package required for construction, which specific requirements and mitigation measures can be conditioned by Council, if needed.

*H5.38 All additions, alterations or replacement buildings must be constructed using flood compatible building materials.*

The proposed replacement facility will use flood compatibility materials.

*H5.39 An engineering report, prepared by a suitably qualified and experienced structural engineer, must be provided to demonstrate that new buildings and structures are able to withstand forces from floodwater, impacts from debris, and buoyancy forces (See Section E – Information Required of this Schedule).*

A certificate from a structural engineer demonstrating that this requirement is fulfilled will be obtained.

*H5.40 An Evacuation Capability Assessment must be provided for any additions or redevelopment of existing lawful Incompatible Development that result in an intensification of occupancy of the site, such as an increase in the number of employees (See Section E – Information Required of this Schedule).*

The proposed development will not increase the frequency with which people may be on site, therefore an Evacuation Capability Assessment is not required. The telecommunications facility is unmanned and remotely operated so it does not pose a bushfire risk to human life. The equipment would require maintenance visits approximately 4-6 times per year.

*H5.41 A Site Flood Emergency Response Plan must be provided when elements of the development, including vehicular and pedestrian access are below the Flood Planning Level (See Section E – Information Required of this Schedule).*

The proposed development will not increase the frequency with which people may be on site, therefore a Flood Emergency Response Plan is not required. The telecommunications facility is unmanned and remotely operated so it does not pose a bushfire risk to human life. The equipment would require maintenance visits approximately 4-6 times per year.

*H5.42 Where it has been demonstrated that evacuation of a property located within the MacDonald Valley or Colo Valley is not possible, 'sheltering in place' may be considered for residential and sensitive development subject to a refuge being*
*provided on land having a level above the Probable Maximum Flood…..*

The proposed development will not increase the frequency with which people may be on site, therefore a Flood Emergency Response Plan is not required. The telecommunications facility is unmanned and remotely operated so it does not pose a bushfire risk to human life. The equipment would require maintenance visits approximately 4-6 times per year.

The other overlay of note is the identified Scenic Protection Land overlay under the State Environmental Planning Policy Amendment (Water Catchments) 2022. As with the bushfire and flood prone land, the Central MacDonald area in its entirety including the subject site is identified as being Scenic Protection Land. Visual Impact is discussed in Section 5 which also addresses this overlay intent.

### 4.3.5 Hawkesbury Development Control Plan 2023

The Hawkesbury Development Control Plan 2023 (DCP) aims to complement the Hawkesbury LEP by providing additional planning provisions within the Hawkesbury LGA. The DCP has been taken into consideration throughout the planning process of the proposed telecommunications facility.

Traditionally, Development Control Plans are for residential, commercial, and industrial development. However, Council has a specific chapter for telecommunication facilities in the DCP. These are addressed in Tables 9, 10, 11 & 12 below.

| **Table 9 - Hawkesbury Development Control Plan 2023** | |
|---|---|
| **Part D - Specific Development**<br>**Section 5 Telecommunications Facilities** | |
| **5.1 Objectives for Telecommunications Facilities** | |
| **Objectives:** | **Compliance:** |
| Provide guidelines for assessment of proposals for telecommunication facilities; | An assessment of the proposal against the Hawkesbury DCP 2023 Telecommunications Facilities has been undertaken below. |
| Ensure that the location and siting of telecommunication facilities does not adversely affect the environment; and | Following the detailed site selection process outlined in Section 3 of this report, 1341 St Albans Road was selected as the prime candidate. The proposal will not adversely affect the environment, with the following critical matters:<br>1. the proposal does not require the removal of native vegetation;<br>2. the proposal does not require any significant cutting of filling of land;<br>3. there is ample space on site the natural filtration of stormwater to naturally filtrate into the soil without causing run-off to adjoining properties; and<br>4. Telstra comply with electromagnetic energy standards mandated set by ARPANSA. |
| Require development consent for development of telecommunication facilities other than `low-impact' facilities or works, in accordance with the Telecommunications (Low-impact Facilities) Determination 1997. | This development application has been submitted for development consent. |

| **Table 10 - Hawkesbury Development Control Plan 2023** | | |
|---|---|---|
| **Part D - Specific Development**<br>**Section 5 Telecommunications Facilities** | | |
| **Mobile Phone Base Stations shall be located in accordance with the following table:** | | |
| **Zone:** | **Location Criteria:** | **Compliance:** |

| | | |
|---|---|---|
| Any land zoned Rural, Residential, Special Uses, Open Space, Environmental Protection, Nature Reserve, Proposed Road under HLEP 1989 and land immediately adjacent to these zones. | A minimum of 300 metres from any school, childcare centre or hospital. | The site is located adjoining Central MacDonald Public School. However, the site currently houses a 20m small cell facility which provides essential connectivity to the immediate area, including for the public school. As a result of natural disasters in recent years, including bushfire, the need for improved connectivity (specifically in emergency situations) is required. Therefore, on merit, the proposal is deemed suitable in this context, noting the locality, including public school, has been accepting of the deployment of telecommunications infrastructure at this location given the benefits delivered. |
| Any land zoned Rural, Residential, Special Uses, Open Space, Environmental Protection, Nature Reserve, Proposed Road under HLEP 1989 and land immediately adjacent to these zones. | A minimum of 300 metres from any residential dwelling unless annual average exposure at any such premises is less than 0.2 uw/cm2. | The proposal is located within 300m from a dwelling, which is necessary to achieve the coverage objectives of the proposal. At a fundamental level, telecommunications facilities must be located near the area they are to provide mobile telecommunications coverage to. It is important to note that there are no viable locations identified what are capable of achieving the coverage objectives located greater then 300m from a dwelling.<br><br>Furthermore, EME exposure levels are 98.93 times lower than the public exposure limit of the ARPANSA Standard.<br><br>The EME Report can be located at www.rfnsa.com.au/2775020 |
| All zones, including the above. | To minimise visual impact, no tower may be constructed closer than 100 metres or three times the height of the tower, whichever is the greater, to any residential dwelling.<br><br>This criteria does not apply to residences in business, industrial, nature reserves and special use zones.<br><br>This condition does not apply in cases of colocation or location on existing built structures. | The subject site is not located within 120m (three times structure height) from the nearest dwelling.<br><br>It is noteworthy to mention that the proposal does seek to replace an existing telecommunications facility on the land, albeit 20m shorter than the proposed structure to limit the number of tall structures within the Environmental living zone. Refer to Section 5 of this report for a comprehensive visual impact assessment. |

| **Table 11 - Hawkesbury Development Control Plan 2023** | |
|---|---|
| **Part D - Specific Development**<br>**Section 5 Telecommunications Facilities** | |
| **5.2 Key Assessment Issues** | |
| **Control:** | **Compliance:** |

| | |
|---|---|
| Proposals for telecommunication facilities should utilise buildings, structures or other non-residential and non-community based features of the built environment for support of towers, antennae and ground based facilities, wherever possible. | Section 3 of this report outlines the detailed site selection process undertaken before proceeding with this development application. In summary of Section 3, there are no viable co-location facilities of existing tall structures within the search area, therefore necessitating a new facility.<br><br>The subject site hosts a 20m small cell facility, however this structure is too small to accommodate the additional Telstra mobile telecommunications requirement, necessitating the need for a taller structure. It is noteworthy that as part of this proposal the existing small cell facility will be decommissioned. This will restrict the number of tall new elements in the landscape, provide a better coverage while facilitating the colocation of the Telstra mobile telecommunications facility. |
| Proposals for towers greater than 5 metres in height are encouraged to locate in commercial/industrial zones, and/or premises used for commercial premises. | The proposal will be located in an existing private property currently used for a small cell facility. |
| Proposals for towers should provide evidence of investigation into co-locating with other carriers, wherever possible. | Section 3 of this report outlines in detail the site selection method undertaken for the project. Any colocation options are too far from the search area and does not achieve the coverage objectives for the site, therefore we are unable to pursue that co-location opportunity further. |
| Proposals for towers in rural zones should avoid locations in close proximity from any residences. | Section 3 of this report outlines in detail the site selection method undertaken for the project. As concluded in this section the proposed location is deemed the most suitable. |
| Proposals for towers and/or other telecommunication works should avoid environmentally sensitive lands including wetlands, creeks and protected habitats of endangered flora and fauna. | The proposed location does not impact on environmentally sensitive lands including wetlands, creeks and protected habitats of endangered flora and fauna. Noting the subject site houses an existing small cell facility in clear, disturbed, adjoining agricultural land. |
| Proposals for towers should be located to have minimal visual impact. | It is noteworthy to mention that the proposal does seek to replace an existing telecommunications facility on the land, albeit 20m shorter than the proposed structure to limit the number of tall structures within the Environmental Living zone. Refer to Section 5 of this report for a comprehensive visual impact assessment. |
| Proposals for aerial cabling will only be considered where there is existing aboveground cables or wires within the same street or locality. Where underground services are provided, every effort should be made to coordinate the provision of underground telecommunication facilities. | Not applicable. The proposal does not include aerial cabling. |
| Any proposal for a tower needs to justify the location in terms of “servicing areas”. | Throughout this entire report various sections have demonstrated this location is required to deliver the needed coverage to the Central MacDonald area where other candidates cannot deliver this. Noting the site currently houses a small cell facility, however, does not provide for connectivity needs in recent years. As a result, a new taller structure is required to deliver the needed coverage, |

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| | especially in natural disaster situations, including bushfire emergencies. |

| **Table 11 - Hawkesbury Development Control Plan 2023** | |
|---|---|
| **Part D - Specific Development**<br>**Section 5 Telecommunications Facilities** | |
| **5.3 Matters for Consideration** | |
| **Control:** | **Compliance:** |
| The need for the proposal with respect to expansion of the carrier's network and alternatives examined within the proposed area to be covered; | The proposal is necessary to provide enhanced mobile telecommunications coverage to Central MacDonald and surrounding area.<br><br>Section 3 of this report deal with alternative candidates examined as part of the site selection process. |
| The proximity of the proposed facility to residential and community facility land uses; | The site is located on land where an existing small cell facility is located. This existing facility will be decommissioned as part of the project.<br><br>The adjoining public-school interface will be maintained similar to the existing site condition. |
| Any guidelines, advice or supporting information submitted by the proponent or other authorities which may be relevant; | Marked up photos are included in Section 5 of this report as supporting evidence depicting the level of visibility from nearby roads. |
| The visual impact of the proposal and measures to ameliorate this impact; | A full breakdown of the potential visual impact of the proposal and measures taken to minimise these impacts is outlined in Section 5 of this report. |
| site access, security and landscaping proposals; | The site will be accessed via existing track and access gates off St Albans Road.<br><br>Landscaping is not required given the existing vegetation in place surrounding the small cell facility in operate at site. |
| the impact of electromagnetic radiation on public health, safety and other electronic communications; and | Telstra has obligations to comply with mandated standards set by ARPANSA.<br><br>EME exposure levels are 98.93 times lower than the public exposure limit of the ARPANSA Standard.<br><br>The EME Report can be located at www.rfnsa.com.au/2775020 |
| any submissions received from the public. | Telstra will review, consider, and respond to all representations received as part of Council's consultation process. |

# 5. The Proposal and Impacts

Section 4.15 of the EP&A Act mandates the likely impacts of the development, inclusive of environmental impacts on both the natural and built environments, and social and economic impacts in the locality.

This section takes into considerations matters of relevance to the proposed development which is inclusive of issues relating to the environmental impacts of the proposal on the built and natural form, as well as the social and economic impacts the telecommunications facility will have on the locality.

It is believed that the proposed mobile phone base station will not result in significant environmental impacts towards the built and/or natural environments. As the proposed land use is already established (telecommunications facility), and the existing facility will be decommissioned as part of the project, the environmental impacts can be considered as the extent of visual change between the existing facility and the new facility. The "footprint" of the proposal comprises of 150m$^2$ (15m x 10m lease area) and will not require vegetation clearance. The following environmental, social, and economic considerations have been made in reference to the proposal.

## 5.1 Visual Impact

### 5.1.1 Siting and Location

The site selection process (Section 3 above) identified several factors that limited the potential locations for this type of development.

The positioning of the proposed monopole on the subject property is considered appropriate with reference to visual impact. Critical to the site selection and decision-making process was the potential impact of the structure on the visual landscape. The subject land parcel and proposed site location is in a position that benefits from the existing characteristics of the locality.

The position of the site maximises the setback of the facility from surrounding residences and limits any sightlines of the facility from these residences whilst remaining able to provide the required radio frequency (RF) coverage to achieve Telstra objectives.

Telstra acknowledge that the site cannot be totally hidden and will have a visual presence in the environment from some perspectives close by. To address the visual presence of the proposed facility, **Figure 9** illustrates numerous assessment points taken to assess the site's presence and visibility against its visual fit within the context of the surrounding settings.


*Figure 11: Aerial view showing locations used for visual impact assessment.*

Positioning the proposed site at this location was assessed with regard to visual impact. The site's specific location has been deliberately chosen because of the minimal sightlines from surrounding residences towards the facility as well as the fact it will not impede the existing use at the subject site.


*Figure 12: **Picture 1** View facing in the direction of the proposed site from a main approach route being St Albans Road 350m northwest of the proposed facility. Sightings of the proposed facility will be obscured by the existing vegetation and topography.*


*Figure 13: Picture 2 View facing in the direction of the proposed site from a main approach route being St Albans Road 350m southeast of the proposed facility. Sightings of the proposed facility will be obscured by the existing vegetation and topography.*

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*Figure 14: **Picture 3** View facing in the direction of the proposed site from across the MacDonald River on Settlers Road 450m northeast of the proposed facility. Sightings of the proposed facility will be obscured by the existing vegetation and topography.*

As can be seen in the above images, mature trees and undulating topography will screen the monopole resulting in a reduced visual impact on the overall character of the area. From this location, existing vegetation will screen the majority of the site except the headframe at the top of the pole. The facility will be visible together with power poles and overhead power cables traversing the roadway.

Mobile base stations are reasonably commonplace in today's urban landscape – thousands of mobile telecommunications facilities are in operation across Australia, over a variety of land uses and environments. Telstra seeks to propose facilities in locations that have the least amount of impact possible on a community, while being able to deliver a high-quality service. However, it is recognised that, like all forms of development, telecommunications facilities have a visual effect. This visual effect can be attributed to two unavoidable characteristics of mobile phone base stations:

- they are structures which generally protrude above other structures; and
- they need to be located at suitable heights in order to operate effectively.

The visual impacts of the proposal are determined to be minor due to the combination of existing natural screening, undulating topography, existing built structures and the existing power and lighting infrastructure. Freestanding mobile phone base stations are a common feature within urban and rural landscapes. The justification behind the use of a freestanding structure is to provide coverage within flat and undulating topography. Specific design elements have been included within the planning of the proposed facility, inclusive of:

- limiting the height of the proposal to 40m. This will ensure that the best level of coverage can be provided to the locality, without constructing to a height which would offer no additional benefit to the service area;
- co-siting with the existing small cell facility site to minimise the number of tall structures within the area. Niting small cell facility will be removed;
- ground based equipment is to be located in an area that will be screened from adjoining uses by existing vegetation;
- the placement of the proposed facility on land where existing telecommunications facility, to maintain and established development footprint; and

- the siting and location of the proposal has been taken into consideration during the site selection process in order to ensure that the site does not result in any undue visual intrusion towards surrounding viewing corridors.

As can be seen in the above photographs the surrounding area is expected to absorb many of the visual impacts of the proposal to ensure the overall character of the area is not impacted. In addition, Telstra have utilised the smallest tower design possible capable of achieving a feasible level of service. A monopole lower than 40m cannot provide a suitable solution for this area exacerbated by the mature trees surrounding the facility.

A monopole design has been utilised at this location in place of a lattice tower design to minimise any potentially adverse visual effects. This design creates a minimal profile in the landscape, significantly reducing the bulk of the facility and blending in with existing lighting infrastructure within the area. The monopole is proposed to be finished in a recessive colour to blend the facility into the background, so it is not a dominant feature in the landscape.

In terms of the potential visual effects of the proposed facility, it is important to note that the antennas need to have "line of sight" to the area that they are servicing (i.e. they need to be visible to the devices in the area they service) in order to function effectively – this is an inherent feature of cellular technology. Antennas cannot be placed below a topographical line, or surrounded by trees or tall buildings, otherwise they will not be effective in providing the service to the user. It is a result of the technology that telecommunications facilities must be visible in order that they operate effectively.

While it is acknowledged that the monopole would have a visual presence in the surrounding area, Telstra has designed the facility sympathetically thus minimising negative visual impacts of the facility as much as possible while still achieving acceptable levels of coverage. The antennas are mounted via a Telstra standard triangular headframe designed to achieve optimum performance without appearing too oversized. The chosen design still achieves the desired coverage objectives while having a negligible impact on the surrounding area.

From the discussion outlined above in 5.1, several conclusions have been made apparent concerning the proposed facility:

- the proposed facility has been designed and will be finished to have minimal visual impact on surrounding environment without undermining its viability to meet the coverage and capacity requirements of Central MacDonald;
- recessive colouring and a monopole design lessens the potential visual impact;
- views of the proposed facility are limited predominantly in the lot, further away the proposal is partially screened from public view;
- the nature of the technology determines that telecommunications facilities require direct line of sight to the areas that they are serving, subsequently the antennas need to be visible to these areas in order that they provide effective service to the user; and
- telecommunication facilities are an accepted part of the peripheral landscape and an expected component within the built environment. Much like essential services such as power lines and streetlights, telecommunications facilities are now part of the expected streetscape in built areas. With the expectation of having mobile phone coverage, there is an acceptance that facilities that provide the coverage will be visible. Over time these facilities become part of the background and are no longer noticed.

## 5.2 Socio – Economic Considerations

As new technologies arise and the demand for this service grows exponentially, so does the demand for improved telecommunications infrastructure and reliable services.

According to the Australian Communication and Media Authority (ACMA), the number of mobile service (voice and data) subscriptions in Australia exceeds the Australian population, with 35.9 million voice and data service subscriptions current as at June 2019 – and between June 2017 and June 2018, the number of subscriptions increased by 2.8%, against a reduction of fixed line telephone subscriptions of -4.9% over the same period. These Australian Government statistics demonstrate that consumers have an increasing expectation for reliable, fast and cost-effective mobile phone network services across all areas of Australia. https://www.acma.gov.au/publications/2020-02/report/communications-report-2018-19

Usage of mobile services continues to widen as new technologies become progressively more affordable and accessible. The previous decade saw a significant rise in use of the wireless network for smart devices. Australia has one of the highest penetrations of "smartphone" usage in the world, with reliance on this technology increasing – the abovementioned ACMA study estimates 83% of Australian adults were using smartphones in June 2019, against 79% in May 2018. The amount of data downloaded via mobile phone is greatly increasing monthly. According to the Australian Bureau of Statistics, the

volume of data downloaded via mobile handsets for the three months ended 30 June 2019 was 1,811,362 Terabytes. This was a 34.5% increase in data downloads via mobile handsets when compared with the three months ended 30 December 2017 and a 66% increase in downloads compared to the three months ended 30 June 2017.
https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/internet-activity-record-keeping-rule-rkr/june-2019-report

The mobile network also supports a variety of other wireless capable devices, such as tablets and laptop computers, which have also been designed for increased mobility and accessibility. This has also increased the imperative to eliminate mobile 'blackspots' – that is, areas with compromised service.

The provision of maintaining communications services in the area will have many beneficial impacts on the people who live, work, visit and travel through the area. Better internet access will improve education, access to media and information, and increase efficiency in the workplace. Businesses will also benefit due to the proposed facility comprising a range of telecommunications network providers. The facility will have significant benefits for the local communities and the public interest would be served by the approval of the proposal due to the benefits of enhanced mobile telephone coverage and the provision of the network in the area. The facility will have benefits for visitors, residents, and businesses in the district. Benefits of telecommunications include:

- enabling emergency calls and Emergency Services such as the fire department use phones and technology to conduct on-site assessments and send them instantly back to base;
- medical Benefits – Using the various technology services, vital medical monitoring data can be sent to hospital-based specialists by local doctors or emergency services personnel in the field. This allows for immediate and continuous medical assessments, which were not possible previously;
- educational benefits such as curriculum sharing, data-sharing, easier links to outside experts via web links, virtual classrooms etc. This is particularly useful at a tertiary education level, however, is now being practised at all educational levels in practice of social distancing to stop the spread of the global pandemic – COVID-19;
- telecommuting presents another option for workers – with high quality network coverage, workers may be able to work from home instead of travelling to work. This trend is heavily reliant upon wireless communication and is anticipated to continue increasing in popularity. Availability and access to reliable mobile network has been evident during the global pandemic, most employees are working from home;
- enabling business to conduct correspondence online which saves time, resources and money. Improved telecommunications provisions effectively remove physical distance and travel time as barriers to business; and
- keeping constant communication and receiving the latest health information available using digital devices.

## 5.3 Flora and Fauna

Telstra recognise the importance of biodiversity conservation and undertake necessary practices to minimise impacts on the surrounding environment. The proposed will not have any adverse impact on any identified local flora or fauna of significance as no vegetation is proposed to be cleared. The proposed foundation will not encroach into the tree protection zones of the existing trees in the area. As a result, none of the surrounding vegetation is expected to be adversely affected by the proposed works and no trees are proposed to be removed as part of the works. Noting the subject site currently houses an operating small cell facility that has been previously deployed in this cleared, disturbed, area.

## 5.4 Heritage and Cultural Values

Telstra recognise the importance of heritage and cultural value and undertake necessary practices to minimise impacts on any known or unknown heritage.

The Interactive Map search has indicated there are heritage items located in the vicinity of this land parcel. However, upon review the items are a cemetery and slab-built dwellings where the proposed facility us unlikely to have an impact on the heritage fabric of these items, given the nature and distance to these items.

Telstra takes its obligations in regards to Aboriginal Cultural Heritage seriously. Before carrying out any on-groundwork or activity thought must be given to how it might affect Aboriginal sites. the National Parks and Wildlife Act (NPWS) 1974 requires the exercise of due diligence to see if Aboriginal sites might be harmed by activities. Checking the Aboriginal Heritage Information Management System (AHIMS) is part of this due diligence. The due diligence code of practice sets out the reasonable and practicable steps which individuals and organisations need to take to:

- identify whether or not Aboriginal objects are, or are likely to be, present in an area;
- determine whether or not their activities are likely to harm Aboriginal objects (if present); and

- determine whether or not an Aboriginal Heritage Impact Permit (AHIP) application is needed.

A basic AHIMS search has been undertaken using the proposed facility coordinates, where no Aboriginal items or objects have been identified (**Appendix E**). However, landscape features are also required to be considered as part of the due diligence process. Whilst the proposed site is in proximity to the MacDonald River, considering the distance (360m approx.) with the St Albans Road corridor in between, results in there being no impact to this landscape feature in terms of Aboriginal Cultural Heritage.

The proposed development will not result in any further significant ground disturbance as the subject site has been previously disturbed through generations of agricultural activity where the land has been significantly turned over with activity, beyond that of ploughing practices, with the existing small cell facility also being deployed in recent years.

Therefore, based on the above assessment, the proposal has been checked against the requirements of the due diligence code of practice and a basic AHIMS search as to the need for the requirement of an AHIP. It has been assessed that a AHIP is not required.

The construction contractors are required to meet any obligations under the NPWS Act 1974 should any Aboriginal Cultural Heritage be discovered.

## 5.5 Traffic and Access – Parking and public transport

The facility will not adversely affect the safety and efficiency of roads. Access to and from the site will be obtained via a proposed access track off the existing internal road within the property. Refer to **Appendix A** Design Drawings. The access follows the shortest route to the location to ensure minimal disturbance to the surrounding environment. A Traffic Management Plan will be employed should it be required.

Operational access will be via the same route.

It is anticipated that the proposed development and ongoing operation would have little impact on the local traffic network, or volumes. The equipment would require maintenance visits approximately 4-6 times per year or as required in the event of an electrical outage or other similar event. Routine maintenance would involve one vehicle per visit and parking would be available close to the subject site for this purpose. Other maintenance would occur on an as-need basis and would not generate significant traffic movements.

Any resulting impact on the local road system would be considered to be negligible.

## 5.6 Utility Services

Further identification of utilities would be undertaken during the detailed design stage of the proposal, and any impacts assessed, and necessary safeguards implemented as required.

The following mitigation measures would be implemented to ameliorate any impacts on existing infrastructure:

- a ‘dial-before you dig’ search would be undertaken during the detailed design stage;
- prior to construction, all infrastructure and utilities would be identified; and
- if required, prior to construction, relevant utilities and adjacent residents would be notified of any impending disruptions to services.

When operational, the site will be unmanned, and does not require utility services such as telephone, water and sewerage. All services required for the ongoing operation of the base station are capable of being provided to the facility without impacting on the supply or reliability of these services to any existing consumers in the locality.

## 5.7 Noise and Vibration

Noisy construction activities would be mainly during drilling/excavation of the foundation/footing for the monopole. It is also expected that there would be some noise generation from construction vehicles and machinery.

The only noise generated during its operational stage is that from the air-conditioning unit servicing the equipment cabin. This air-conditioning unit is like those used for cooling of residential premises and will comply with the relevant noise emission guidelines.

It is not expected that construction works would create a noticeable vibration impact on the surrounding area.

## 5.8 Health and Safety

Mobile phone base stations emit electromagnetic energy (EME). The facility will comply with ACMA EME regulatory arrangements in relation to emission of electromagnetic energy (EME), this specifically being the Radiation Protection Series S-1 (Rev. 1) - Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021) knowns as RPS-1

The report, provided at **Appendix B** of this SEE, concludes that the maximum cumulative EME level at 1.5m above ground level is estimated to be 1.07% of the ACMA mandated exposure limit.

The EME predictions in the Environmental EME Report provided are based on the facility operating at maximum power, these facilities are designed to be low powered and rarely operate at maximum power.

This involves:

- base station transmitters operating at maximum power (no automatic power reduction);
- simultaneous telephone calls on all channels; and
- an unobstructed line of sight view to the antennas.

Further to the above, emission levels produced by 4G and 5G transmitters such as that proposed by this proposal are considered to be lower than other common types of transmitters.

Telstra acknowledges that despite this some people are genuinely concerned about the possible health effects of EME.

The World Health Organisation's current advice (updated 21 February 2020) is:

"*Studies to date provide no indication that environmental exposure to RF fields, such as from base stations, increases risk of cancer or any other disease"*

ARPANSA's position is:

*"Based on current research there are no established health effects that can be attributed to the low RF EME exposure from mobile phone base station antennas."*

Further information on the predicted EME emissions from the proposed base station and 5G technologies can be found in **Appendix B**.

In summary, the EME emissions from the proposal are well within the ARPANSA standards.

## 5.9 Other Impacts During Construction

### 5.9.1 Air Quality

There is potential for dust generation during the excavation of the pole footings.

During construction all construction areas would be sprayed with water during dry and windy weather to suppress airborne dust generation.

The compound site and surrounds would be appropriately restored after the completion of works to ensure no ongoing dust generation.

### 5.9.2 Waste Minimisation and Management

Due to the relatively minor nature of the works, the generation of waste resulting from construction of the proposed facility is expected to be minimal. Most of the waste generated is expected to be excess soil because of construction of foundations for the monopole and establishment of the site compound area.

Excess soil from the earthworks would be utilised on-site in association with landscaping of the facility, with the remainder disposed of at an approved waste disposal facility.

Other waste such as packaging material will be removed from site.

The operation of the facility will be mostly unmanned and will not generate any waste during the operational phase.

# 6 Conclusion

Telstra propose to construct a new telecommunications facility at 1341 St Albans Road, Central MacDonald NSW 2775, The proposed telecommunications facility, will replace an existing small cell facility currently at site, and will provide mobile coverage in the area. This deployment is part of the Federal Government initiative, Black summer Bushfire Recovery Programme, and ensures sufficient mobile coverage during a potential natural disaster.

Site Logic on behalf of Amplitel, part of the Telstra group, have undertaken an assessment of relevant matters as required by the Telecommunications Act 1997, the Environmental Planning and Assessment Act 1979, the State Environmental Planning Policy (Infrastructure and Transport) 2021, the Hawkesbury LEP 2012, and the Hawkesbury DCP 2023. The proposal is considered appropriate considering the relevant legislative, environmental, technical, radio coverage and public safety requirements.

The proposal is considered to be the most prudent approach to fulfilling Telstra's mobile telecommunications coverage and capacity requirements. The proposed facility is considered appropriate for the below reasons:

- The proposal has been located to result in the least possible cumulative environmental impact, noting the site already houses a small cell facility (20m monopole).
- The proposal utilises a monopole design that blends into the environment, decreasing adverse visual impact in the area.
- The proposal is well setback from residential uses while still being able to provide coverage to these uses.
- The proposal although visible to varying degrees, does not result in unacceptable level of visual impact or impact to the character of the area.
- The proposed installation will have minimal impact on the general use of the land. This proposal does not set any development precedent at the subject site and does not result in adverse environmental impact to the Central MacDonald area. Furthermore, the proposal will not have adverse impacts on runoff or sedimentation given its small footprint.
- The proposal is also considered the most appropriate solution between the competing demands of planning, coverage, design, property, construction and the expectations of stakeholders.
- The proposal will provide good mobile telecommunication service to the Central MacDonald area, ensuring residents and businesses in the area experience uninterrupted access to what is now considered an essential service. This will in turn enable socio-economic benefits to the community.
- The facility will comply with ACMA EME Regulatory arrangements.

We respectfully request that Hawkesbury City Council considers the limited impacts and expected benefits of this proposed facility in assessing this development application.