

Development Application for Planning Consent

Proposed New Telecommunications Facility

Lot 503 (487) Sixty Eight Road

Baldivis WA 6171

Lot 503 on DP 50796

Town Planning Report

Project Reference: P1155 - Baldivis

RFNSA Reference: 6171024

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Document Prepared by
Ventia Joe Bennett 25 Barker Street, Belmont WA 6104 0476 977 761 Joe.Bennett@ventia.com

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Executive Summary

Site Information	Lot description: Lot 503 on DP 50796 Physical address: 487 Sixty Eight Road Baldivis WA 6171 Coordinates: -32.363819, 115.833557
Proposal	Ventia are seeking development approval for a new Telecommunications Facility at 487 Sixty Eight Road Baldivis WA 6171 (Lot 503 on DP 50796) The proposed facility will be owned by the Indara Group and host Optus telecommunications equipment. The facility will provide Optus 4G and 5G services to the Baldivis area. The proposal involves: • One (1) new 40m Indara monopole, finished in unpainted, non-reflective grey. • Optus telecommunications equipment on the pole and within the compound, including: • Three (3) 4G panel antennas, each up to 2.8m in length, mounted on a new headframe. • Seven (7) 5G panel antennas, each up to 1m in length, mounted on the new headframe. • One (1) 4 bay outdoor equipment cabinet, finished in either beige or pale eucalypt green, mounted at ground level at the base of the pole. • Ancillary equipment associated with operation and safety of the facility, including remote radio units, cabling and safety equipment. The facility will be located within a fenced compound. The monopole and associated equipment will be finished in non-reflective pale grey.
Purpose	Indara Infrastructure Pty Ltd (part of the Indara group), with Optus, are proposing a new telecommunications facility at Baldivis. The proposed facility will provide coverage to the new residential developments to the North and West of the proposed facility as well as the Kwinana freeway and surrounding rural properties/reserves. The facility has been designed as a neutral host facility, capable of supporting co-location by other carriers, government entities and wireless service providers.
Planning Considerations	LGA: City of Rockingham Zoning: Rural (Rockingham) Overlays: Development Contribution area No.2. 1 in 100 (1%) AEP floodplain. Bush Fire Prone Area. Moderate-Low Risk Acid sulfate soils.

Applicant	Ventia on behalf of Indara Infrastructure Pty Ltd 25 Barker Street Belmont WA 6104 Contact Person: Joe Bennett – Graduate Town Planner Email: Joe.Bennett@ventia.com Our Reference: P1155 – Baldivis 1
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1. Introduction

Ventia, on behalf of Indara Infrastructure Pty Ltd (part of the Indara Group), are seeking development consent for a new telecommunications facility at 487 Sixty Eight Road Baldivis WA 6171 (Lot 503 on DP 50796).

The new facility will be comprised of a 40m Monopole supporting Optus telecommunications antennas and equipment. The purpose of the project is to significantly improve Optus mobile telecommunications services, including coverage and network capacity, in the Baldivis area.

This Town Planning Report provides an assessment of the project against relevant planning controls.

2. Background

2.1 Indara and Optus

This development application has been prepared and submitted by Ventia on behalf of the Indara Group. Indara are Australia's leading independent owner and provider of shared wireless telecommunications infrastructure, with a portfolio of over 4300 telecommunications sites across Australia.

Indara are Australia's leading independent owner and operator of digital infrastructure. We provide critical communications and data solutions that help support the digital transformation of our society. We're passionate about investing long term in our nation, building and designing digital infrastructure that creates long term value for our customers and the broader Australian community.

Indara owns and manages over 4300 mobile telecommunications facilities across Australia. Indara operate as a neutral host – our facilities are specifically designed to accommodate co-location by Australia's mobile carriers, government agencies and other wireless services providers.

Indara has partnered with Optus Mobile Pty Ltd (Optus) to expand the Optus mobile network across Australia. This facility is being proposed to improve Optus mobile services in the Baldivis area.

The proposed facility is comprised of a new 40m monopole and associated passive infrastructure, which will be owned and managed by Indara, and active infrastructure (antennas and telecommunications equipment) which will be owned and managed by Optus.

Note for legal purposes, the applicant for this development application is Indara Infrastructure Pty Ltd.

2.2 Demand for Network Services

Access to high quality telecommunications services is vitally important to the community. Mobile usage continues to trend upward.

- 99% of Australians use a mobile phone; 76% of Australians do not have a landline phone and rely exclusively on a mobile phone¹.
- Mobile data usage continues to significantly increase as the network is used in different ways. Between 2020 and 2021, the amount of data downloaded by phone increased by over 29%². In the first quarter of 2022, global mobile data usage grew by 40%³. Streaming and video calling are major drivers of this increased demand.
- Covid-19 significantly changed the way that Australians live and work – 61% of employed Australians worked online from home in 2021⁴. With many Australians continuing to adopt flexible or hybrid work arrangements, additional demand has been placed on the mobile network.
- Public safety is a significant driver behind improvements to mobile coverage. In 2021, around 78% of emergency calls were made from a mobile handset⁵.

More than ever, mobile telecommunications is an essential service. By extension, mobile base stations are essential infrastructure – it is important that mobile infrastructure keeps pace with this increasing demand.

2.3 Coverage Objectives

¹ <https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-how-we-communicate>

² <https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-how-we-use-internet>

³ <https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-traffic-update>

⁴ <https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-trends-and-developments-telecommunications-2020-21>

⁵ <https://www.triplezero.gov.au/triple-zero/How-to-Call-000/advanced-mobile-location>

3. Candidate Selection

3.1 Site Selection

Before proposing a new base station, mobile carriers will attempt to resolve service issues by reconfiguring or upgrading existing base stations. If upgrades will not resolve service issues, the carrier will consider any opportunities to co-locate on an existing mobile facility, building or other structure.

If there are no feasible co-location opportunities, the carrier will proceed to deploy a new 'greenfield' base station.

This facility is proposed in partnership with Optus, who have confirmed a new telecommunications facility will be needed in the Baldvis area, and are working with Indara to deploy the new facility.

3.2 Upgrade and Co-Location Opportunities

Existing telecommunications facilities in the area have been assessed to confirm if they are feasible for co-location.

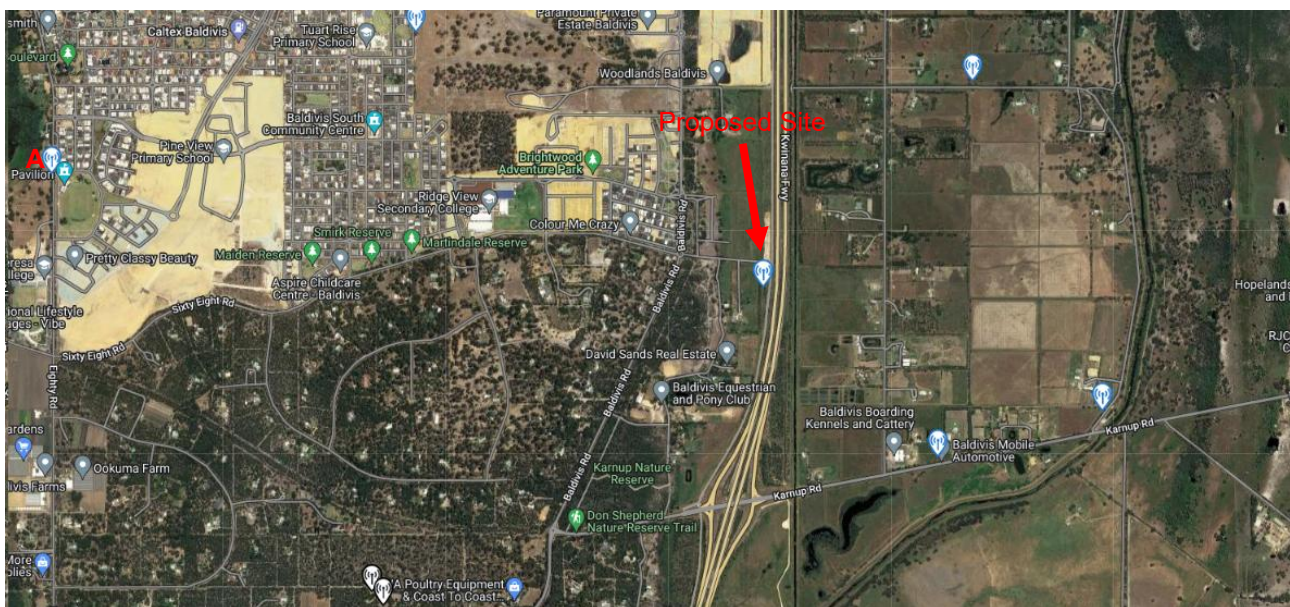


Figure 1 Existing Facilities in Baldvis area - RFNSA (Sites not marked are inactive)

Figure 1 shows the location of existing facilities in the area around this proposed site, based on information from the Radio Frequency National Site Archive database (www.rfnsa.com.au). None of the existing sites in the area are suitable for co-location.

Existing and Proposed Communications Facilities		
RFNSA Details	Site Address	Comments
A:6171029 Optus	Existing utility pole #S8052664 within road verge Adjacent to Eighty Rd - Peckham Blvd BALDIVIS WA 6171	The site is a small cell facility mounted on an existing utility pole which is only able to support minimal infrastructure and has a small area of coverage.
B:6171003 Optus Telstra Vodafone	44 Outridge Road BALDIVIS WA 6171	Site is located too far to meet the objective coverage area to the North. This site has Optus infrastructure installed but additional technology is unable to increase the extent of coverage.

3.3 Alternate Candidates

In identifying a candidate, we have sought to maximise separation from residences and sensitive uses where possible, whilst also endeavouring to minimise impacts on the environment and scenic amenity as far as practicable.

A precautionary approach has been taken to site selection in accordance with sections 4.1 and 4.2 of the *C564:2020 Mobile Base Station Deployment Code*.



Figure 2: Potential candidates (Google Earth)

Prospective Candidates		
Candidate	Site Address	Comments
A	Proposed Monopole Lot 42 Lugg Road, Baldivis WA 6171	Land Owner advised by the City of Rockingham that the City wouldn't support the Baldivis Equestrian Club surrendering their lease with the City. Land is also part of bush forever.
B	Rooftop Site Baldivis IGA, 61 Makybe Drive, Baldivis Western Australia 6171	The rooftop site is not suitable to achieve the required coverage due to the height possible.
C	Proposed Monopole Lot 504 (487) Sixty Eight Rd, Baldivis, WA 6171	Candidate C is the preferred candidate and the subject of this report.
F	Monopole 227 Young Road, Baldivis WA 6171	Landowner not interested.
S	Monopole 774 Wilkinson Road BALDIVIS WA 6171	Site not suitable to achieve the required coverage due to distance from target coverage area.
Q	Monopole 177 Powell Road BALDIVIS WA 6171	Site not suitable to achieve the required coverage due to distance from target coverage area.
R	Monopole 16 Young Road Baldivis WA 6171	The site is not suitable to achieve the required coverage due to the distance away from the coverage area.
H	Monopole 193 Young Road Baldivis WA 6171	Unable to reach an agreement with landowner.
T	Monopole 47 Young road, Baldivis WA 6171	Unable to reach an agreement with landowner.
U	Monopole 213 Karnup Rd, Baldivis WA 6171	Site not suitable to achieve the required coverage due to distance from target coverage area.

4. Site Context

The site is located 46km South of Perth's CBD abutting Kwinana Freeway, Perth's primary major road connecting the southern suburbs. To the North-West of the proposal is the suburb of Baldivis which is undergoing significant residential growth and development. The South and East of the proposal is primarily made up of rural residential and agricultural properties along with Karnup Nature Reserve and Baldivis Equestrian Club in close proximity. The proposed facility will assist in the service the existing use of the local area and support the continued residential growth of the area.

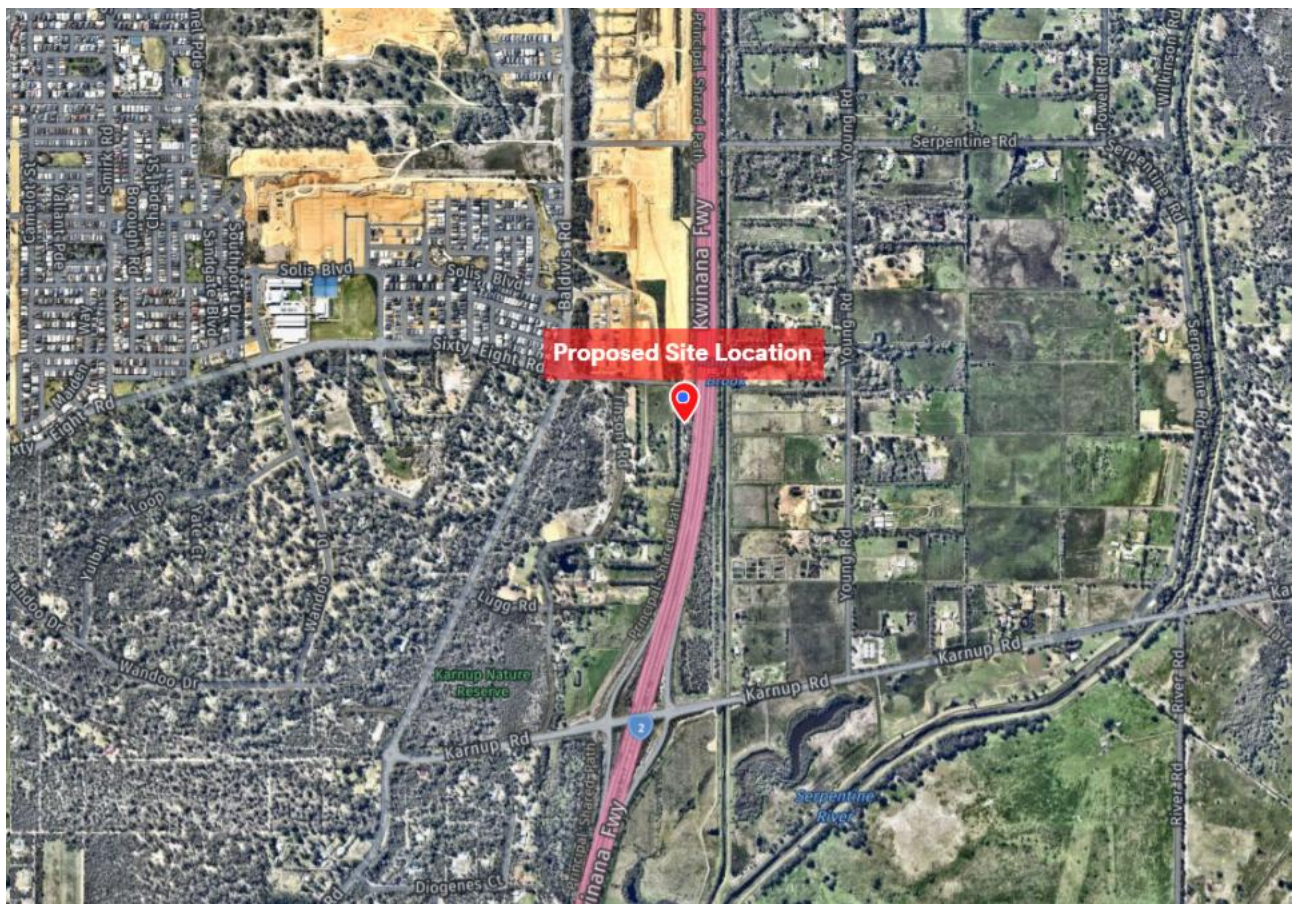


Figure 3 Proposed site location - 487 Sixty Eight Road, Baldivis WA 6171

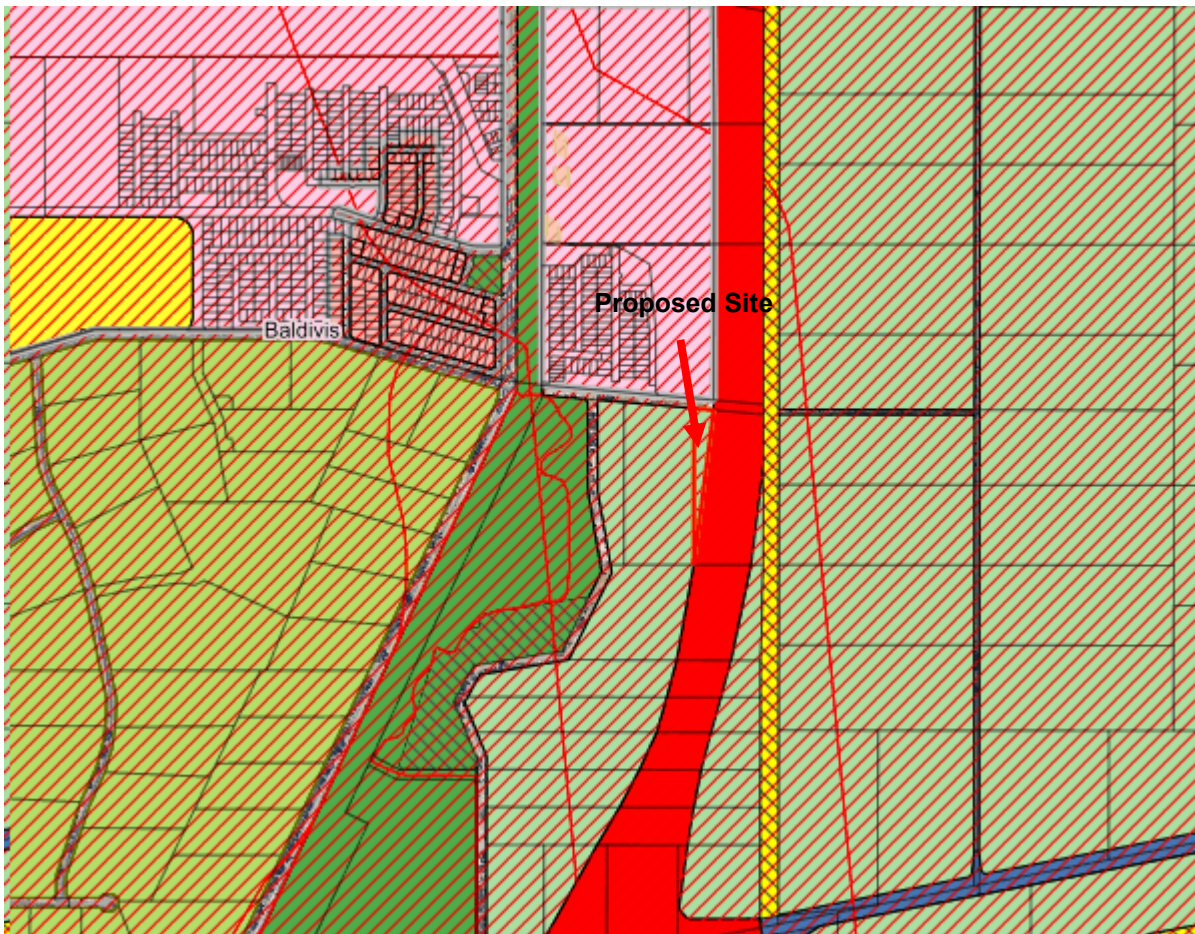


Figure 4 Site zoning - City of Rockingham TPS2

The proposal land is zoned rural under the City of Rockingham town planning scheme No.2. Kwinana Fwy to the East of the proposal is zoned Primary Regional Road. The land to the North of the proposal is zoned for development and has been partially subdivided with development underway. Karnup nature reserve to the West of the proposal is zoned as public open space with special rural zoning making up the majority of the land further west.

To be effective, telecommunications facilities must be located close to those who are using them which in this case is primarily the new residential development. As the City of Rockingham does not permit the deployment of telecommunications facilities within residential areas, the proposed site location has been deemed the best option to provide the growing community with coverage whilst not having a significant impact on the areas visual amenity.



Figure 5 Site local context

The site is located apx. 150m into the property away from Sixty Eight Road. The facility has been deliberately sited in this area as it provides a significant buffer from the new housing development that is underway on the northern side of Sixty Eight Road. It has also been situated among a grouping of trees which will provide screening of the ground infrastructure and lower portions of the monopole, no tree clearing will be required as part of the proposal.

The ground infrastructure and lower portions of the monopole will also be screened from the principal shared path and Kwinana Fwy due to the wall adjacent to the shared path. The closest residence to the proposed facility is located 180m to the South-West within rural zoning.



Figure 6 View facing South towards proposed facility location



Figure 7 View facing North from proposed facility location

5. Proposed Works

5.1 Equipment to be Installed

The proposed works involve installation of:

- One (1) new 40m Indara monopole, finished in unpainted, non-reflective grey.
- Optus telecommunications equipment on the pole and within the compound, including:
 - Three (3) 4G panel antennas, each up to 2.8m in length, mounted on a new headframe.
 - Seven (7) 5G panel antennas, each up to 1m in length, mounted on the new headframe.
 - One (1) 4 bay outdoor equipment cabinet, finished in either beige or pale eucalypt green, mounted at ground level at the base of the pole.
 - Ancillary equipment associated with operation and safety of the facility, including remote radio units, cabling and safety equipment.

The overall height of the facility, including antennas and equipment, will not exceed 43m above ground level. The facility will be located within a fenced 12m x 15m compound, enclosed by a 2.4m tall chainlink security fence.

Refer **Appendix A** for proposal plans.

5.2 Site Access and Parking



Figure 8 Site access from Sixty-Eight Road

The property can be accessed via an existing gate off Sixty Eight Road. An upgraded gravel access track of approximately 120m is required to the proposed compound.

Once constructed, the facility will operate on an unmanned basis aside from periodic routine maintenance visits (generally 2-4 times annually). The facility will not generate significant vehicle traffic through its ongoing operation.

5.3 Noise

The facility will not be a significant generator of noise. The only part of the facility that generates noise is the cooling fans on the equipment cabinet.

Cooling equipment will only operate when required and will not operate continuously. Cooling equipment will operate at levels generally comparable to those of a domestic air conditioner. The project is not expected to represent a noise nuisance. The site has also been significantly set back from residences and will have no noise impact in this regard.

5.4 Power and Utilities

The proposed facility will be connected to the greater Optus network via fibre transmission through a new underground conduit. Site Access and Site Layout plans showing proposed fibre and power routes are appended to this report Appendix A.

No works associated with stormwater drainage, or connections to reticulated water and sewerage, are proposed or required.

5.5 Emissions

Operation of the facility will not result in emission of dust, heat, smoke, gaseous plumes or particulates.

To provide mobile coverage, the facility will produce electromagnetic EME emissions. These will be within the levels prescribed by ARPANSA and regulated by ACMA. An ARPANSA EME Report, demonstrating compliance with Australian safety standards, is attached. Refer section 8 of this report.

5.6 Environmental Considerations

Heritage and flora and fauna surveys have not been independently undertaken by INDARA over the proposed site although it is acknowledged that the site has been disturbed and contains minimal remnant vegetation. The proposal does not involve the removal of any significant vegetation or the displacement of fauna. The desktop assessment and subsequent site visit did not identify the presence of endangered or protected species. During the construction phase, the subject site area will be fenced. Additionally, the operation of the facility or the facility itself will not impact on fauna given there are no moving parts that may otherwise cause bird strike, and the limited vehicular movements are contained to the designated track.

The site is subject to an acid sulphate soil risk area. The area is a risk class 2 (Moderate to Low risk) area as per the Department of Water and Environmental Regulation soil risk map. Whilst earthworks are limited to modest excavation for the monopole footing and grading associated, the site is located within a moderate to low acid sulphate soil risk area and work will be commenced accordingly. INDARA's contractors are experienced with ensuring compliance with the requirements of the Department of Environment Regulation Acid Sulphate Soils Guidelines.

The site is located within a 1 in 100 year flood zone and as such the design has a raised platform for the outdoor cabinets to avoid flood impact. The facility is a non-habitable structure and as such further mitigation is not required.

5.7 Heritage

The facility is not located within an identified area of State Heritage significance.

A search of the Department of Aboriginal Affairs heritage database has/ identified Registered Aboriginal heritage sites in the area. Site 3582 (Serpentine River) is located to the South of the proposed facility. The construction and operation of the site will not have any impact on the Aboriginal heritage area.

Indara does not intend to lodge an Activity Notice with the SWALSC. Optus further notes that the landowner has not advised of any consultation obligations under a heritage agreement or Indigenous Land Use Agreement (ILUA) for works occurring at the site.

Indara's contractors are experienced with ensuring compliance with the requirements of the Aboriginal Heritage Act 1972. Whilst no impact is anticipated as a result of the proposed development, should any item of archaeological importance be discovered during the course of construction, work would cease immediately, and all appropriate authorities notified. Work would not resume until all clearances have been received from these authorities.

5.8 Aviation

The proposed facility is not expected to have any impact on aviation safety. The facility is not within 30km of an airport or aerodrome, and does not penetrate any Obstacle Limitation Surfaces. No specific aviation safety measures, such as lighting or obstacle paintwork, are proposed.

6. Legislative Context

6.1 Commonwealth Legislation

6.1.1 Telecommunications Act 1997 and Telecommunications (Low-Impact Facilities) Determination 2018

The *Telecommunications Act 1997* allows mobile carriers to perform certain maintenance and installation works without needing development consent. The *Telecommunications (Low-Impact Facilities) Determination 2018* also allows for certain kinds of 'Low Impact' equipment to be installed without development consent.

New towers do not fall within these federal planning exemptions. Accordingly, this proposal will require Council approval.

6.1.2 Telecommunications Code of Practice 2018

The *Telecommunications Code of Practice 2018* emphasizes "best practice" for the installation of facilities, compliance with industry standards and minimisation of adverse impacts on the environment.

This proposal has been designed with consideration for the Code of Practice. All steps will be taken to do as little damage as practicable; the facility will be constructed and operated in accordance with

industry standards and good engineering practice; and the design of the facility will be in accordance with industry best practice.

6.1.3 C564:2020 Mobile Phone Base Station Deployment Code

The Communications Alliance Limited *C564:2020 Mobile Phone Base Station Deployment Code* (the Deployment Code) is an industry code of practice registered by the Australian Communications and Media Authority.

The Code applies to all licenced telecommunications carriers, and sets guidelines for site selection, community consultation, design, installation and operation of telecommunications facilities. Sections 4.1 and 4.2 of the Code are relevant to this proposal, and require a precautionary approach to site selection, infrastructure design and site operation. The proposed facility has been sited and designed in accordance with Sections 4.1 and 4.2. Checklists demonstrating compliance can be provided on request.

The Code also requires an ARPANSA EME report be prepared for all new mobile base stations, to demonstrate compliance with relevant safety standards. The report is enclosed in Appendix 2.

6.2 State Legislation

6.2.1 Planning and Development Act 2005

The *Planning and Development Act 2005* establishes the planning and development system framework in Western Australia.

The project is considered to be 'Development' as defined by Section 4 of the Act:

- (a) Any demolition, erection, construction, alteration of or addition to any building or structure on the land;
- (b) The carrying out on the land of any excavation or other works;
- (c) In the case of a place to which a protection order made under the Heritage Act 2018 Part 4 Division 1 applies, any act or thing that –
 - (i) Is likely to change the character of that place or the external appearance of any building; or
 - (ii) Would constitute an irreversible alteration of the fabric of any building.

6.2.2 Metropolitan Region Scheme

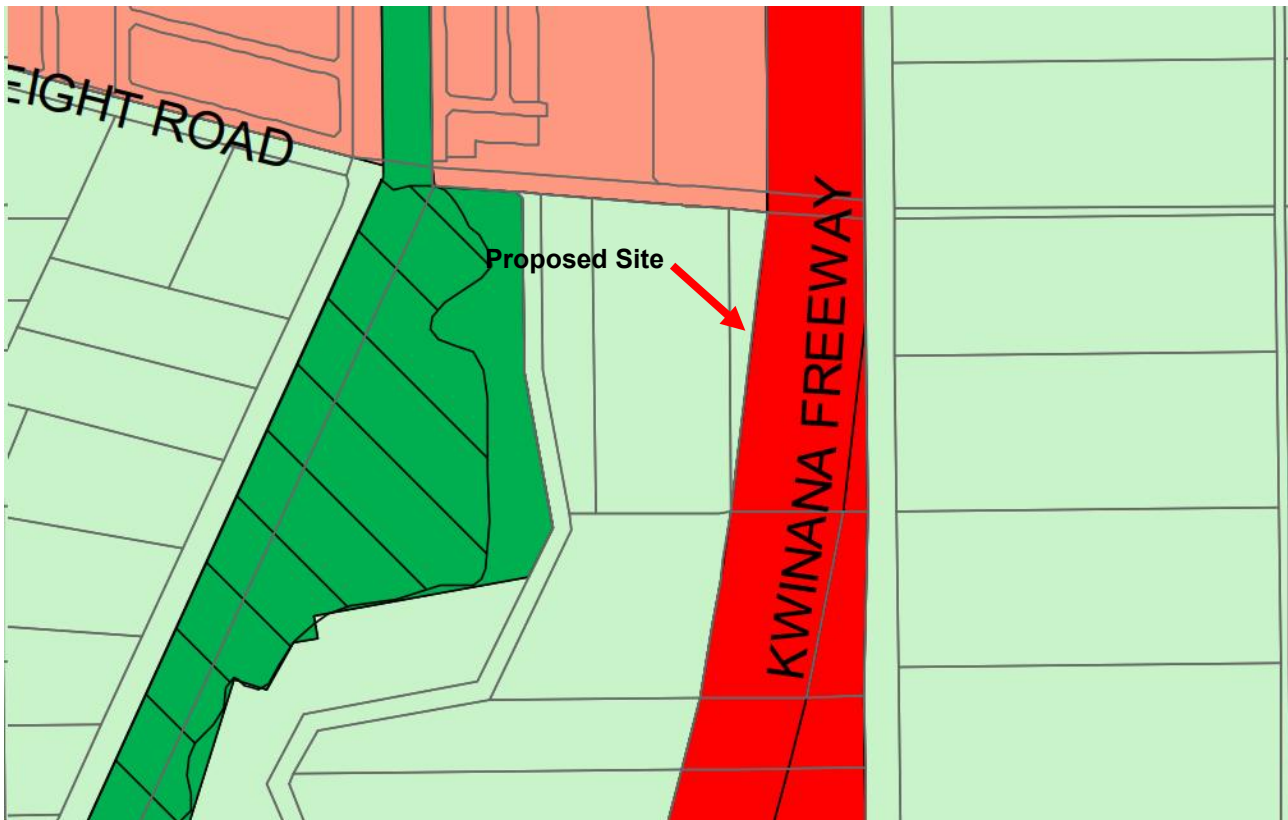


Figure 9 MRS Zoning (Rural)

The project is subject to the provisions of the Metropolitan Region Scheme (MRS). The site retains a Rural classification under the MRS – refer Figure 9.

Pursuant to clause 16(2), the proposed use is permissible with the approval of the Commission. “Reserved land owned by or vested in a public authority may be used or developed for any other purpose approved by the Commission with or without conditions.”

6.2.3 State Planning Policy 3.7 – Planning in bushfire prone areas

The proposed facility does not result in unacceptable risk from bushfire to persons or property. The telecommunications facility is unmanned and remotely operated. Further to this, the facility is pre-fabricated 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 extreme weather events.

The Bush Fire Prone Areas 2021 dataset identifies bush fire prone areas of Western Australia as designated by the Fire and Emergency Services (FES) Commissioner on 11 December 2021. Bush fire prone areas are subject to, or likely to be subject to, bush fire attack. The subject land is designated to be located within a bush fire prone area.

Notwithstanding that the subject land is identified as a bush fire prone area subject to or likely to be subject to bush fire attack, the proposed development is classified under the Building Code of Australia as Class 10b (non-habitable structures). The monopole structure is non-flammable with internal feeders and the equipment shelter non-habitable and of a design routinely used in areas with a BAL of Fire Zone (FZ). As such, the development is fully compliant with AS3959 Construction of Buildings in Bush Fire Prone Areas and will not result in any additional fire load or risk to occupants.

The compound itself is free of vegetation forming part of an asset protection zone (APZ) in conjunction with abutting access tracks which are also free of vegetation. It is not the intent of State Planning Policy 3.7 Planning in Bushfire Prone Area (SPP3.7) for Class 10 (Telecommunications Infrastructure) to require a BAL or Bushfire Hazard Assessment in fire prone areas.

6.2.4 State Planning Policy 5.2: Telecommunications Infrastructure

The project has been assessed against the SPP5.2 Telecommunications Infrastructure, and is considered to be consistent with this policy.

4 Policy Objectives	
Objective	Comments
a) facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs;	The location, height and design of the proposal have been reviewed in depth to ensure that the facility is able to meet the needs of the growing community. The facility design has made a reservation of space for other carriers to co-locate in the future to ensure that the community can have access to this essential service in the most efficient and least impactful way possible.

b) manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure;	INDARA has taken significant steps to select a site and location that will minimise perceived negative impacts on the visual amenity and natural rural character of the area. The area under focus for coverage is primarily residential which is very sensitive when it comes to the provision of new telecommunications facilities. The proposed location allows for coverage of the developing residential area and Kwinana Fwy without significantly impacting on the residential streetscape. The site is not perceived to have significant impact on the environmental value or cultural heritage of the area.
c) ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons; and	There is a general expectation in the wider community for a dependable and reliable mobile phone network for business and personal reasons. Further to this, mobile phone networks form a vital “first response” tool to emergency situations – hence the importance of carriers to ensure that their infrastructure can be maintained to the highest standards. As such, telecommunications infrastructure should be considered essential infrastructure when new developments and subdivisions are underway to meet the growing needs of the area
d) promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure.	Telecommunications facilities should be assessed and determined in a manner that is consistent, understanding of context and proactive in considering and accommodating the future growth and needs of the area.

5 Policy Measures

5.1 Visual Impacts

For telecommunications infrastructure to be effective, structures are generally located prominently, at high points in the landscape or on top of buildings, where they are more likely to be visible to the public. The planning authority may exercise discretion in addressing the visual impacts of telecommunications infrastructure. Visual impacts of an infrastructure development proposal should be assessed by applying the following set of policy measures to guide the location, siting and design of the structure.

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

Measure	Comments
i) Assessment of the visual impact of development proposals for telecommunications infrastructure should be made on a case by case basis;	The assessment of telecommunications infrastructure and its visual impact should be made on a case by case basis and take into account the need for the facility and its benefit to the surrounding area. In this case, there is significant benefit to having a new facility and the visual impact to the surrounding area is minimal.
ii) Telecommunications infrastructure should be sited and designed to minimise visual impact and whenever possible:	The facility has been sited in a location that has a significant setback from the nearest residential properties and has screening from the trees and freeway wall that hides the ground infrastructure and lower portion of the pole from the local and primary road network.
a) be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites;	The site will not be prominently visible from local scenic routes, lookouts and recreation sites.
b) be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land;	The site will not have a significant impact on any views/outlooks etc. INDARA is able to provide photomontages of what the proposed facility will look like from various locations upon council request.
c) not be located on sites where environmental, cultural heritage, social and visual landscape values may be compromised and	The site has not been located in an area that has environmental or cultural heritage significance. It is not expected that social and visual landscape values will be compromised as a result of the proposed facility.
d) display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape;	The design uses a slimline monopole structure which is less visually intrusive than a lattice tower option. The external colours and finishes will be made non-contrasting to the landscape and ground infrastructure will be painted to blend in.
iii) In addition to the existing exemptions under the Telecommunication Act, local governments should consider exempting telecommunications infrastructure from the requirement for development approval where:	N/A

a) The infrastructure has a maximum height of 30 metres from finished ground level; b) The proposal complies with the policy measures outlined in this policy; and c) The proponent has undertaken notification of the proposal in a similar manner to 'low impact facilities' as defined and set out in the Mobile Phone Base Station Deployment Industry Code (C564:2020);	
iv) Telecommunications infrastructure should be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community; and	The facility has been located where it will facilitate continuous network coverage and improved service to the growing community of Baldivis and remedy coverage issues along Kwinana Fwy.
v) Telecommunications infrastructure should be colocated and whenever possible:	In this instance, there were no options for co-location that could successfully meet the requirements of the target coverage area. INDARA have ensured that the facility has been designed in such a way that will provide room for the co-location of other carriers in the future and therefore reduce the need for further facilities at a later stage.
a) Cables and lines should be located within an existing underground conduit or duct; and	The existing site does not have an existing underground conduit/duct and as such a new power run will be trenched from Sixty-Eight Road.
B) Overhead lines and towers should be co-located with existing infrastructure and/or within existing infrastructure corridors and/or mounted on existing or proposed buildings	There is no similar infrastructure within the vicinity of the proposed site. In this case, there were no opportunities to co-locate with similar infrastructure. There were no feasible rooftop mounted facilities possible within this area.

6.3 Local Legislation

6.3.1 City of Rockingham Town Planning Scheme No. 2

The City of Rockingham Town Planning Scheme No.2 defines Telecommunications Infrastructure as

“a premises used to accommodate the infrastructure used by or in connection with a telecommunications network including any line, equipment, apparatus, tower, antenna, tunnel, duct, hole, pit or other structure related to the network”

In this case, the proposed telecommunications facility is located within a property that is zoned “Rural” under the scheme and is classed “D” under the zoning table and therefore “the use is not permitted unless the local government has exercised its discretion by granting development approval;”

Although telecommunications facilities are not a “rural use”, they are essential infrastructure that is required to support the function of all zones including rural and residential. Telecommunications facilities are not permitted within residential areas in accordance with The City of Rockingham TPS2 and therefore, having the infrastructure located in adjacent land with permissible zoning is the only way to ensure quality coverage within residential areas.

The objective of the “Rural Zone” is to “is to preserve land for farming and foster semi-rural development which is sympathetic to the particular characteristics of the area in which it is located, having due regard to the objectives and principles outlined in the Rural Land Strategy and supported by any other Plan or Policy that the Local Government may adopt from time to time as a guide to future development within the Zone”.

The proposed facility particularly supports the “future development within the zone” as in accordance with the Perth and Peel at 3.5 Million plan, the rural land is within the urban expansion corridor and therefore is likely to have additional residential development growth around it which will create further demand for quality telecommunications infrastructure and coverage. As per the Cities Telecommunications policy, “The preferred location for Telecommunications Infrastructure that cannot be classified as low impact facilities is in the industrial, commercial and rural zones.”

6.3.2 City of Rockingham Telecommunications Infrastructure Local Planning Policy 3.3.16

The City of Rockingham Telecommunications Infrastructure Local Planning Policy has been responded to throughout this report and the attached appendices. Should the city require any photomontages/photo simulations of the facility, INDARA will have these made from the viewpoints requested by The City of Rockingham

7. Visual Impact

It is best practice to undertake a 'visual impact assessment', prepared in accordance with 'Visual Landscape Planning in Western Australia', to demonstrate to the satisfaction of the local government that the proposal satisfies the City of Rockingham's Telecommunications Policy. The Manual provides broad guidelines that should be read in conjunction with those specifically drafted for telecommunications infrastructure (SPP 5.2).

Part 1 of the Manual 'Introduction' addresses the planning context, distinguishes between visual landscape evaluation (plan making) and visual impact assessment (development assessment), and outlines the scope of the Manual.

Part 2 of the Manual 'Visual Landscape Planning Methods' includes processes for use by those decision makers who are responsible for recommending acceptance or otherwise of specific development proposals (i.e. visual impact assessment).

Part 3 of the Manual 'Guidelines for Location, Siting and Design' provides guidance for utility towers, including telecommunications towers. This guidance assists in ensuring proposals reduce their potential impact on visual landscape character.

Discussions were undertaken with the Department of Planning Project Managers responsible for the production and implementation of the Manual to affirm the intent of the Manual specific to telecommunications. These discussions also concentrated on appropriate design responses to minimise visual impact in urban and coastal environments. Subsequently, this understanding of this Visual Landscape Assessment, utilising the Manual, has been prepared on the premise that minimising the impact on the area's aesthetic where possible. It was noted by the DoP staff that the Manual is not State Policy rather it provides guidelines applicable to development on private land to assist in the protection of significant landscapes.

The Manual refers to three broad, basic visual character objectives:

- protection and maintenance of visual landscape character;
- restoration and enhancement of degraded visual landscape character, or opportunities for enhancement; and for other areas
- the broad objective is to undertake a combination of protection and enhancement where appropriate, and elsewhere to undertake best practice siting and design.

We consider that as the proposed site is within an area of minimal public use, the visual character objectives are to be directed towards preserving the natural amenity and aesthetic of the area as well as minimising impact on view from residential and sensitive land uses. The selected location for the facility is considered a good site in minimising the visual impact on the other properties nearby.

The proposed 40m high monopole is the minimum height required to ensure the required coverage whilst also maintaining the natural character of the area and not imposing on the new housing developments to the North of the site. The lower portion of the pole and its ground infrastructure will be out of view of the residences under development on the northern side of Sixty-Eight road due to the setback of the facility as well as the tree screening.



Figure 10 View from Sixty Eight Road, adjacent to 23 Cogita Ave looking South-East towards proposed site



Figure 11 View from Baldivis Road, adjacent to Solis Bvd facing South-East towards proposed site

As can be seen from figure 10 and 11, Sixty Eight Road and Baldivis road have significant tree screening along the road network which will block the lower sections of the pole and its ground infrastructure from the local road network.

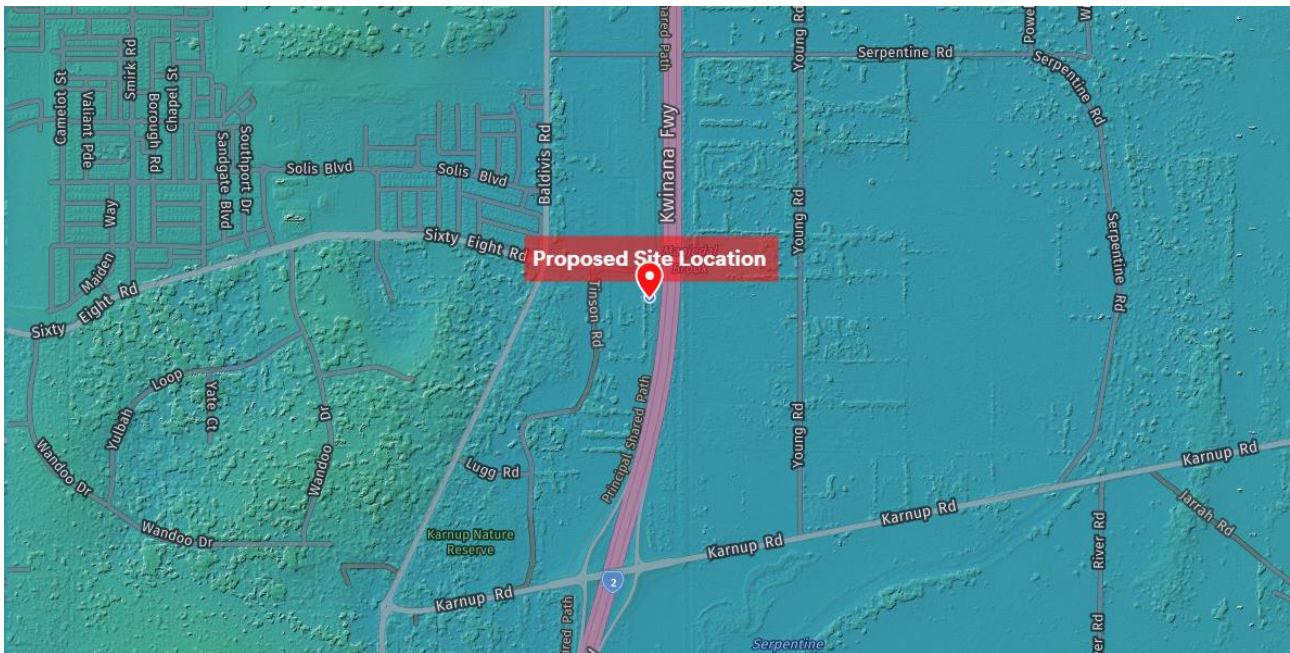


Figure 12 Topographic view of proposed facility location

Figure 12 shows that the area surrounding the facility is generally flat and there are no major vantage points or distant lookouts that will be impacted by the installation of the proposed facility

The most notable place of environmental amenity within the proposed facility area is the Karnup Nature reserve bushland to the South-East of the site which will not be visually impacted by the installation of the facility due to the topography shown above as well as the significant amount of tree coverage. INDARA will supply photomontages of the proposed facility at the request of council.

The Manual provides three specific visual management objectives to meet the fore-mentioned broad visual character objectives:

- not evident: development may be hidden, screened or not visible from specified viewing locations;
- blending: development may be evident, but generally not prominent in that it borrows from the existing landscape setting; and
- prominent: development may be a dominant feature in the landscape, drawing attention to itself.

The Manual states that “where the broad objective is for a landscape to be enhanced or restored, any of the three specific objectives may apply. It is more likely to be acceptable for development to be prominent in the landscape, as a new feature will enhance a landscape that is currently lacking in visual interest.” The pragmatic broad objective for managing the visual impact of the proposed monopole is blending, because it is not feasible to screen the pole from view, nor is the proposed pole designed to be prominent in the way that an iconic building or public art may be. This is the

approach that INDARA has taken to proposed ground level infrastructure. Given there is no existing development restoration and enhancement strategies to make existing development blend better have not been proposed.

The term blending is also described as 'harmonise with', 'compliment' or 'borrow from'. To ensure that a development blends with existing valued landscape character, it is necessary to identify the dominant visual components of the landscape. The local natural area of the site is predominantly characterised by established trees between 10 – 25m in height. Light colours such as zincalume® or white are often avoided to better blend with the green foliage. The external colours and finishes will consist of non-reflective and dole colours which will not be in contrast to the rural character of the locality. Antennas will be left unpainted with a factory grey finish to avoid drawing attention. The equipment on ground infrastructure is proposed to be externally colour-treated pale eucalypt but can be changed at council request.

The Manual recommends that "...remnant bush be retained wherever feasible, as it provides a strong visual reminder of an area's original landscape character, thus forming a major component in an urban area's current expression of character." The maximum extent of low heath and shrub land to be removed is limited to the minimum required for safe construction and operation of the facility. The proposal does not involve the removal of any trees.

8. Radiofrequency Emissions and Safety

It is the position of the Australian government, and peak health bodies like the World Health Organization (WHO), that mobile base stations are safe.

Statement from Australia's Chief Medical Officer

I'd like to reassure the community that 5G technology is safe. There is no evidence that telecommunication technologies, such as 5G, cause adverse health impacts. This position is supported by health authorities in Australia – such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) – and around the world, such as the World Health Organization.

Mobile phone networks and other wireless telecommunications emit low-powered radio waves also known as radiofrequency (RF) electromagnetic energy (EME). This is different to ionising radiation associated with nuclear energy or use in medicine. The radio waves to which the general public is exposed from telecommunications are not hazardous to human health.

<https://www.health.gov.au/news/safety-of-5g-technology>

Australian Government Advice

What do we know about EME? Answer: extensive scientific research confirms that mobile technology has no long or short term health effects; and the Australian Government is focused on capturing the benefits of advanced telecommunications while ensuring strict protections and safety standards are met.

The EME standard set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) defines the maximum exposure limit for all wireless equipment and is strictly enforced by the Australian Communications and Media Authority (ACMA). Measurements undertaken by carriers and ACMA show that mobile telecommunication sites emit a tiny fraction of maximum EME exposure limits. The exposure limits are themselves very conservative. As such, sites which operate at 100% of the limit are still considered safe.

This standard is informed by decades of quality studies undertaken by expert Australian and international scientists which show the low levels of EME produced by telecommunications equipment have no adverse effects. This includes previous generations of mobile technology, like 3G and 4G, and the higher, more efficient, radio waves used for 5G.

<https://www.infrastructure.gov.au/media-centre/5g-and-electromagnetic-energy>

EME is one of the most heavily studied types of energy in the world. Decades of research shows there is no verifiable evidence that EME from telecommunications facilities pose a negative health risk, especially when emission levels are below the maximum exposure limits set out in the Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (the Standard).

<https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme>

All mobile base stations in Australia must comply with a strict safety standard called the *Standard for Limiting Exposure to Radiofrequency Fields – 100 KHz to 300 GHz (RPS S-1)*. The standard has been prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), based on the recommendations of ICNIRP (International Commission for Non-Ionising Radiation Protection).

The Australian Communications and Media Authority (ACMA) regulates compliance with the standard. The safety standard applies to all mobile frequencies currently used in Australia, including 3G, 4G and 5G.

The Standard operates by placing a limit on the strength of the signal (or RF EME) that mobile carriers can transmit to and from any network base station. The environmental standard restricts the signal strength to a level low enough to protect all people at all times. It has a significant safety margin, or precautionary approach, built into it.

An ARPANSA EME report has been prepared to demonstrate compliance with the Australian standard. This report demonstrates the maximum signal strength that a proposed telecommunications facility is capable of producing, assuming it is operating at maximum capacity.

This facility will operate at maximum EME levels representing **0.91%** of the Australian standard. Refer Appendix D.

Note that mobile base stations are designed to operate at minimum, not maximum, power levels at all times. The facility will only operate at a level necessary to accommodate the number of customers using the facility at any one time. Actual EME levels emitted by the facility will generally be much lower than those shown in the ARPANSA EME Report.

9. Conclusion

Ventia, for the Indara Group, is seeking development consent to install a new telecommunications facility at Lot 504 (487) Sixty Eight Road, Baldivis WA 6171. The new facility is proposed to improve mobile services in the Baldivis area.

The facility has been sited to minimise impact on surrounding land uses as far as practicable, generally accords with planning requirements for the site, and has as small as possible a visual impact.

Given the significant public benefit afforded by the proposal, it is requested that consent be granted to undertake the project.

Appendix 1: Certificate of Title

Appendix 2: Proposal Plans

Appendix 3: ARPANSA EME Report

Appendix 4: Owners Consent