

Our reference: 6KAZ-6DBG-5105 Yallingup Siding

Thursday 10th March 2016

Stephanie Izzard
Planning Officer
City of Busselton
Locked Bag 1
BUSSELTON WA 6280

Dear Ms Izzard,

Proposed Axicom Telecommunications Facility, Lot 470 Caves Road, Yallingup (DA15/0662) – Response to issues raised in submissions

I write with reference to the proposed Axicom telecommunications facility at the above address in order to provide nbn fixed wireless coverage to the area to the south of Yallingup & Yallingup Siding. Thank you for the opportunity to respond to the submissions received. Following a recent public consultation process, one hundred and thirty nine (139) submissions were received by Council within the consultation period. Of these, forty seven (47) submissions were in favour of the proposal, ninety (90) opposed the facility and two (2) were indifferent. We have identified the issues raised by members of the community, and a response to these issues is provided for your consideration below.

Visual impact of the proposed development upon the amenity of the area

The location and type of proposed base station has been carefully chosen to reduce the visual impact. In order for the fixed wireless service to operate efficiently and provide a quality and reliable service to the end user. **nbn** requires line of site to the desired coverage area which can be achieved by sufficient elevation and clearance of its antennas above physical obstruction, such as built form, topographical features and vegetation.

In this particular instance, the target area is dominated by low density rural residential properties. Whilst the base station will be visible to the surrounding area due to the height, attention has been given to the best siting and design possibilities to conceal the facility:

- The proposed facility will be surrounded by existing vegetation which will provide screening from the closest dwelling to the east.
- A 45m tower is considered to be the smallest structure capable of meeting coverage and operational objectives.
- A monopole design has been selected which is the least visually intrusive design option in built-up areas.
- The current proposal is for an unpainted steel monopole, which has been demonstrated over time to most successfully blend with the uniform colours of the landscape and sky conditions. Should Council consider it appropriate, the monopole can be painted in a neutral colour to suit its surroundings.

A photomontage was provided in the Development Application depicting the visual impact of the facility. It is considered that the facility does not dominate the skyline.

Visual impact of the proposed development will have an adverse impact upon local businesses and tourism to the area

The expectations of modern society include access to a high quality telecommunications network across both rural and urban areas. This area has been identified as an area in which these facilities should be improved. The provision of the new infrastructure will achieve improvements, providing improved coverage and greater availability and reliability of service for residents, businesses and tourists or other visitors to the area. The improved coverage and reliability will maintain the area's status as a high quality residential and tourist area and as a result, will facilitate both residential, commercial and tourism development in the area as deemed appropriate by the Local Government. The development will also allow other carriers to use the structure in the future for a co-location opportunity, reducing the need for additional structures in the area.

The development itself will occupy only a small portion of land and as a result, will not restrict the viability of the site or the surrounding area for future use or development considered suitable within the rural residential area.

Due to the nature of the development and the scale required to meet the telecommunications network criteria, the structure will be visible from some vantage points in the local area. However, this visibility has been minimised and any detrimental impacts mitigated by means of the following:

- Design of structure and use of circular headframe;
- Selection of colour and materials; and
- Retention of significant vegetation in area and location of infrastructure to maximise screening.

Alternative locations on the subject site which are more internal and setback further from the lot boundaries should be considered

A number of alternative locations within the current subject property (Lot 470 on Deposited Plan 128582) were considered, both during the initial scoping process and following requests from Community and Council to revisit site selection.

We note that obtaining tenure is a critical part of the site selection process as **nbn** do not have legal powers to force an agreement with a landowner and therefore it is crucial that we find property owners that are willing to host this type of facility on their property. Upon finding a willing landowner, which meets all requirements, we work with them to secure a site that strikes a balance to both minimise impacts on the surrounding community, but also meet their preferences.

We have discussed at length the possibility of relocating the site with the landowner, but the landowner is hesitant to agree to a relocation. We believe that due to the nature of the site and its surroundings, any site on the current property at a similar elevation to the current subject site would be likely to continue to attract opposition. Many of the submissions objecting to the proposal were uncompromising in their position; essentially advocating for the facility to be relocated entirely. Even if the landowner were agreeable to a relocation on the current property, we consider that any benefits of moving the site would be negligible. We maintain that the current site within the property offers reasonable visual and physical separation from surrounding dwellings.

Alternative sites should be considered further away from residential properties or on reserved land

We have conducted a robust site selection process, and having considered numerous candidates in the area it is our belief we have found the best available solution. When **nbn** and Axicom's project team's first scope an area, they will investigate and identify all feasible options. These candidates are assessed on a number of considerations, including whether planning approval is likely to be obtained, tenure can be secured and all technical requirements.

For the fixed wireless network to be effective the nbn base station is required to be as near to the

target area as practical, therefore radio network base stations are located either in the centre or in close proximity to the target coverage area. The characteristics of the local area also need to be considered.

Our project teams were focused on selecting sites which present the least impact on the surrounding community whilst still being able to provide an acceptable level of service. We note that, from our initial desktop scoping, 13 sites were selected for detailed investigation as described in our Development Application. We note that eight of the prospective sites were rejected based on tenure. The remainder were considered in detail, where comment was also sought from City of Busselton planning department, and of those, the subject location (Candidate K) was considered to be the best site of those available.

Given the significant amount of effort placed into the site selection process and feedback received from our well attended Community Information Session in November 2015. We have every confidence that the correct option has been selected based on several competing considerations.

The following alternatives (some on public land) have been considered since the community information session:

Lot 302 (DPaW) alternative on cleared DPaW land identified by Rod Taylor (Reserve 8428)

- (-33.661933, 115.024321) at 45m.
- Securing tenure with DPaW will be a difficult process and the likelihood of success is unknown.
- The land use is sensitive environmentally.
- This facility serves less premises than the current, and the sector balancing is not sufficient - the sector facing the west is carrying hardly any traffic.

Lot 302 (DPaW), previously investigated and then re-assessed

- In addition to all of the factors detailed for the candidate above, it is likely that the clearing of vegetation would be required.

The proposed Telstra facility (on MP Barry House's property)

- 60m Guyed mast – 55m height availability (-33.72336, 115.04331)
- Yallingup Siding Telstra is 6.43 km away from Yallingup Siding Telstra.
- Majority of premises to the north of the target area would not be covered

Land banked Optus 80m guyed mast tower

- 80m Guyed mast – 70m height availability (-33.70919, 115.07245)
- Optus is 5.76km away from Yallingup Siding site.
- Majority of premises to the north of the target area would not be covered

161 Butterly Rd, Quindalup

- The nearest residential property is approximately 80m away from the proposed location;
- There is a large coverage 'hole' in the target area due to tree & terrain clutter blocking the signal

Proposal is in conflict with the planning requirements for the area (i.e. Policy and Objectives of the Rural Residential Zone and the requirements of the Landscape Value Area under the Scheme)

Rural Residential Zone Policies

As outlined in the development application submitted to council, the proposed telecommunications facility supports and upholds the zone policies of the rural residential zone, based on the following:

- No subdivision is proposed
- This proposal contributes to provision of services to the area by establishing a new fixed wireless broadband service for the area.

- The nbn facility will directly improve access to data services/internet to view/search facilities provided by Department of Fire and Emergency Services websites during emergencies such as bushfire. Furthermore, once established, the facility will provide some relief to existing mobile networks, so that mobile devices can be more effectively used with less congestion during emergencies. This will relieve mobile networks to allow for direct communication between family members and the delivery of warning messages to mobile phones based on the physical location of a handset at the time of the emergency (the national telephony-based warning system).
- There is limited impact on vegetation or flora/fauna in area. Clearing has been avoided as far as possible (although there will be some, limited, clearing) with negligible impact on biodiversity. Desktop searches have been undertaken and revealed no areas of concern in this regard.
- The site has been selected to avoid any sites of conservation or heritage value. Searches have been completed and none identified in proximity of site.
- While the proposal is not directly tourism related, improved telecommunications services will be useful for entire community including visitors and the tourism industry. In the current age of digital technology and working, reliable digital telecommunication is a valuable asset for a rural area.
- While the proposal constitutes development in a largely rural area, given the scale of the development it is not considered that there will be a detrimental impact on the agricultural viability of the subject lot or the surrounding land. There is no risk of contamination from the site and appropriate measures will be followed during construction to prevent any introduction of weeds or pests into the site.
- The development will not have a detrimental impact on agricultural or other development. Where the Local Government deems other types of development appropriate in the area, the provision of reliable telecommunications services may facilitate diversification of land use in the area.
- While the top of the structure will be visible from some points in the local area, design and location choices have been made to minimise and mitigate this impact to make the most of existing screening (vegetation and topographic) opportunities. It is not considered that this development will result in a significant detrimental impact on visual amenity in the area.
- Consistency with the objectives and intent of the Agricultural and Rural Land Use Planning Policy, Leeuwin-Naturaliste Ridge Planning Policy and other State Planning Policies have all been addressed in the original application and this document.
- Site selection avoids areas of natural resource value.
- The development meets aims and objectives of relevant policies, therefore considered to be in accordance with the Shire's Local Planning Strategy and Local Planning Scheme including zoning and Landscape Value Area.
- There is no detrimental impact on weed and/or feral animal management however appropriate policies will be in place during construction to prevent spread of weeds or pests.
- The proposed development will not restrict future development on proposal site or adjacent land.

Rural Residential Zone Objectives

As outlined in the development application submitted to council, the proposed telecommunications facility supports and upholds the Objectives of the rural residential zone, based on the following:

- Land considered suitable for purpose as set out in application. Proximity to urban area means site is suitable (line of sight, network coverage etc) and supports improved telecommunications in area.
- While there is some visual impact as a result of the structure construction, site selection minimises visual impact and design considerations also mitigate impacts. Only short term disruption during construction and following completion, there will be minimal disturbance. The development will only be visible from a small number of properties which minimises impacts on residential amenity.

- Modern society has expectations about availability of telecommunications services across urban and rural areas. Developments such as this are necessary to maintain these services to facilitate residential and other development.
- No restriction of rural development is anticipated. Therefore the development is not incompatible given the small land area occupied and minimal impact on the surrounding use. Given requirements for coverage, it is considered that this development is compatible with rural area.
- The development has no detrimental impact on conservation
- A summary of the investigated candidates was outlined in the original application to council, please also refer to comments above relating to the further alternative candidates investigated within the subject property and surrounding area all of which demonstrates that there is no suitable land available.

Landscape Value Area

As outlined in the development application submitted to council, the development proposal remains compliant with the provisions within 'The Landscape Value Area' (LVA) based on the following:

- The proposed development, whilst minimal, has an unavoidable impact on the rural and scenic character of the locality however it needs to be considered against the associated benefits for the wider area and community.
- There is no impact on the any wildlife, significant wetland or costal environment or aboriginal relics.
- It is anticipated that the development will not substantially detract from the visual amenity of the area as while the infrastructure will be visible from a number of locations in the area, the site location, retention of existing vegetation and design choices (materials, circle headframe) will minimise visual impact as shown in appendix 2 of submission.
- Screening of base unit will be provided by retained vegetation. Inevitably due to nature of development the top of the structure will be visible from some locations however site selected to minimise impacts, particularly from key locations/vistas.
- The current proposal is for an unpainted steel monopole, which has been demonstrated over time to most successfully blend with the uniform colours of the landscape and sky conditions, however we will be happy to comply with specific requests from Local Government.

Health concerns regarding electromagnetic emissions

nbn considers the health and safety of the community to be of paramount importance, and acknowledge that some local residents are concerned about radiofrequency levels from the proposed facility.

Notwithstanding, Licensed radiofrequency transmitters, including the nbn fixed wireless communications facilities and commercial radio and television broadcast towers, are regulated to protect all people in all environments, 24 hours a day.

The national safety regulations operate by placing a limit on the strength of the signal (or radio frequency electromagnetic energy – 'EME') that NBN antennas can transmit. They do not impose any general public distance-based restrictions, meaning radio communications facilities are permissible in any environment.

Australia has adopted the safety regulations recommended by the World Health Organisation (WHO). These regulations have a significant safety margin, or precautionary approach, built into them. The WHO advise that scientific knowledge of radiofrequency matters, including in relation to communications, is more extensive than for most chemicals, and "**...current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields.**" (<http://www.who.int/peh-emf/about/WhatisEMF/en/index1.html>)

nbn strives to deliver superfast broadband services and keep the community safe at all times, through strict compliance with relevant public health and safety standards established by independent

authorities. This includes the national public health and safety standards for radiofrequency EME. Typically, nbn fixed wireless communications facilities operate at radio signal strengths that are thousands of times below the safety limit.

To put the signal strength into perspective, the general public exposure to radio signals from NBN fixed wireless network facilities is less than or equal to the exposure people experience in their home from a domestic wireless router. Alternatively, it's about one tenth the power of a taxi's two way radio.

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), the national safety watchdog, advises that “**NBN base stations use electromagnetic radiation to provide high speed broadband services to the community. The base stations use similar technology to 4G mobile phones and produce very low exposures to EMR (or EME) in the surrounding area, even very close to the installation. There are no established health effects from these very low levels of RF EMR**” (http://www.arpansa.gov.au/radiationprotection/factsheets/is_nbn.cfm)

Compliance with ARPANSA standards is demonstrated by an EME Report already submitted to Council, and attached again for ease of reference. An extract of the EME report is shown in **Table 1**. The table below demonstrates the signal strength of the facility as a percentage of the ARPANSA safety standard. It should be noted that a facility operating at 100% of the standard is still considered to be safe by ARPANSA. These figures also reflect a 'worst case scenario', indicating the maximum signal strength that the proposed facility is capable of transmitting.

Table 1 – Predicted EME Levels at Yallingup Siding Facility

Calculated EME Levels

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined.

Distance from the antennas at Yallingup Siding Lot 470 Caves Road in 360° circular bands	Maximum Cumulative EME Level – All carriers at this site					
	Existing Equipment			Proposed Equipment		
	Electric Field V/m	Power Density mW/m ²	% ARPANSA exposure limits	Electric Field V/m	Power Density mW/m ²	% ARPANSA exposure limits
0m to 50m				0.27	0.19	0.0041%
50m to 100m				0.54	0.77	0.016%
100m to 200m				0.44	0.52	0.011%
200m to 300m				0.36	0.35	0.0073%
300m to 400m				0.34	0.3	0.0063%
400m to 500m				0.43	0.48	0.01%
Maximum EME level				0.54	0.77	0.016
	65.34 m from the antennas at Yallingup Siding Lot 470 Caves Road					

It should be noted that the Yallingup Siding facility is to be operated at extremely low power levels – the maximum signal strength from the proposed nbn antennas at ground level would be 0.016% of the safety limit – or more than 6000 times below the safety limit.

nbn does not just get its toe over the line when it comes to meeting health and safety obligations – but operates its fixed wireless radio network safely and responsibly at signals strengths significantly below national and World Health Organisation (WHO) standards. In this case, we believe there is no reason for the community to be concerned about health and safety.

Proposal is not consistent with State Planning Policy 5.2 – Telecommunication Infrastructure

As outlined in the development application submitted to council, the proposed telecommunications facility supports and upholds the specific policies measure outlined in State Planning Policy 5.2, based on the following:

- The proposal is appropriately located in Rural Residential area far away as possible from sensitive land uses.
- Due to the site selection process required, balancing network coverage requirements with minimising the visual impacts, this site is considered to provide the best outcome considering the relevant criteria.
- While the proposed is located in an area of Landscape Value, the specific site location is considered to have limited impact on the openness and rural nature of the landscape, with the development being visible from a limited area.
- The site was selected to avoid any specific views or environmental/heritage locations. While the general area is considered to be of high visual amenity regarding the rural nature and landscape, it is not considered that the proposal will have a significant detrimental impact on those values
- There are a number of design choices that have been made to ensure the proposal be sympathetic to the surrounding landscape. The circular headframe will minimise visual impact. The colours that have been proposed will reduce the impact, however if the Local Government would rather change the details then this can be agreed.
- While there were no suitable sites for a co-location development in this case, the structure will provide other carriers with an opportunity for co-location in the future.

Furthermore, site selection and design process is consistent with a precautionary approach as set out in section 4 of Mobile Phone Base Station Deployment Industry Code C564:2011.

Negative impacts upon property values within the area

While property value is not a town planning consideration and Council's decision should not be made on this basis, it is acknowledged that this issue may be of concern to some local residents.

It should be noted that property valuation is an extremely complex issue, with fluctuations in price being subject to a vast number of factors. Many of these are subjective, and may be as diverse as aspect, views, condition of the property, local amenity and access to services, including high quality communications.

Since the mid 1990's there have been thousands of mobile telecommunications facilities developed throughout Australian metropolitan and regional areas. During this period, property values across the board have continued to increase, showing no clear sign of deterioration as a result of specific factors such as the location of telecommunications infrastructure.

Concluding Remarks

As noted above, Axicom cannot relocate this facility and request Council continue its assessment of the proposal. Please be assured that we have thoroughly reviewed all concerns of Council and the community, but we believe the current site retains solid justification and there are no other feasible alternatives we can utilise.

We will not be offering new alternative options to the community for feedback, as there are no suitable and/or superior alternative options available.

The development, while being visible within the locale from some points, has minimal detrimental impact and therefore does not present incongruous development in the landscape value area. Due to the necessity of such structures to meet the public's expectations of telecommunications coverage, it is considered that the development is appropriate within the rural residential zone.

It is considered on balance that the benefits of providing a new fixed wireless service to the community outweigh the relatively small impact on the landscape, which is mitigated through design choices as set out above.

Therefore our proposal demonstrates compliance with the aims and objectives of the Local Government's policies and approach to development in the area and I would respectfully request that Council approves the development.

I trust the above is of assistance, however if you have any further questions please contact me at your earliest convenience.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Astrid Moore', is placed on a light beige rectangular background.

Astrid Moore
Property Consultant