

Menangle Community Association – General Q&A

nbn is pleased to respond to questions forwarded by the Menangle Community Association.

Tower Location / Proximity / Roads and Access

nbn proposes to locate a fixed wireless network facility (40m monopole) within the grounds of the Elizabeth Macarthur Agricultural Institute, at 60 Woodbridge Rd, Menangle (as identified below). The proposed location is 1.6km to the village of Menangle, and 830m to the closest surrounding residence.

The proposed location utilises cleared ground (does not require the removal of any vegetation) and utilises the existing access tracks within the Institute, both the existing paved road, and the existing gravel access track. The proposed location is immediately adjacent the existing gravel access track, and therefore water run off as a result of the proposal is considered to be negligible. See proposed location demonstrated below.

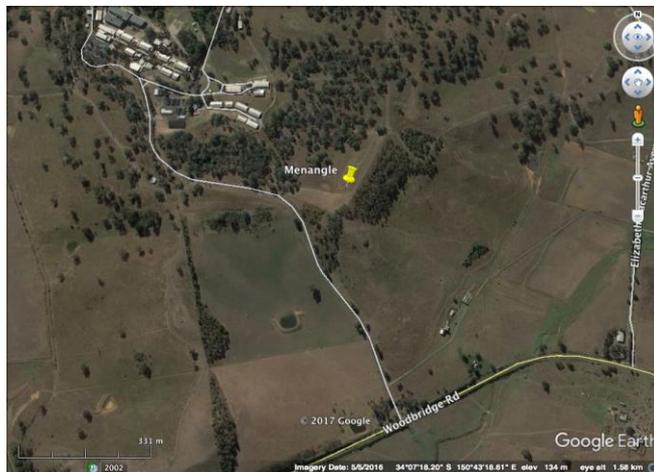


Figure 1: nbn proposal within the Elizabeth Macarthur Agricultural Institute

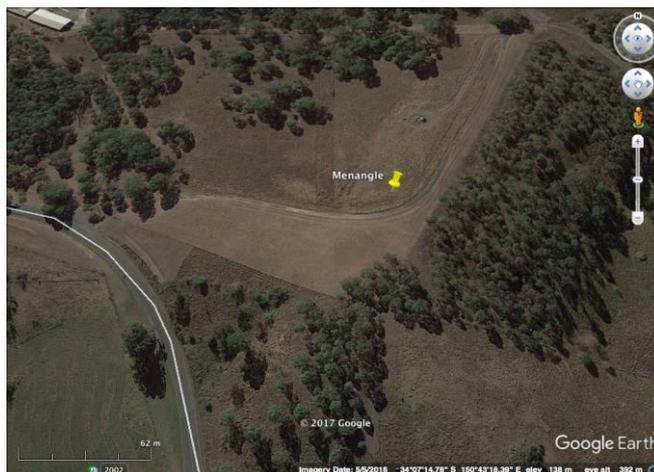


Figure 2: proposed location adjacent access track

Why fixed wireless for Menangle?

nbn is responsible for the design, build and operation of Australia's new fast, wholesale, open access broadband network. Underpinned by a purpose to connect Australia and bridge the digital divide, **nbn**'s key objective is to ensure all Australians have access to fast broadband as soon as possible, at affordable prices, and at least cost.

nbn plans to upgrade the existing telecommunications network in the most cost-efficient way using best-fit technology and taking into consideration existing infrastructure, in keeping with the Government's *Statement of Expectation*¹ that:

*"...nbn should roll out a multi-technology mix network and build the network in a cost effective way using the technology best matched to each area of Australia. ...completing the network and ensuring that all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers."*²

Due to Australia's size and particular geographic challenges, the cost of providing fixed line services to all Australian premises is prohibitive, and has been considered prohibitive since the inception of the **nbn**TM. Fixed Wireless has been a technology delivered by **nbn** since 2009. During this time, more than 2,000 fixed wireless facilities have been proposed across Australia to deliver high quality broadband to smaller and / or more sparsely developed communities - because this technology represents a cost-efficient and time-efficient manner to deliver high-quality services to smaller communities.

More than 1,700 fixed wireless facilities are currently operational across Australia, and small rural villages such as Menangle, and the rural surrounds of larger villages and townships such as Buxton or Tahmoor, are typical of the regional communities receiving fixed wireless services across the country and across the Wollondilly Shire – comprising small villages and large lot rural residential properties.

Across Wollondilly, **nbn** has already completed planning for 12 fixed wireless facilities, of which five (5) are already operational (Bargo, Buxton East, Couridjah, Douglas Park, Tahmoor East) and seven (7) are pending construction completion (Bargo North, Belimbla Park South, Mount Hunter, Oakdale, Razorback North, Werombi, and Werombi East). The proposal at Menangle is consistent with our broader network, and the network across Wollondilly.

What is the Fixed Wireless Service?

The **nbn**TM's fixed wireless network, which uses advanced technology commonly referred to as LTE or 4G, is engineered to deliver services to a fixed number of premises within each coverage area. The **nbn**TM's fixed wireless network uses cellular technology to transmit signals to and from a small antenna fixed on the outside of a home or business, which is pointed directly towards the fixed wireless facility.

At Menangle, the proposed facility is designed to deliver a service to more than 130 properties in the village and the surrounding rural landscape.

The Fixed Wireless service is designed to vastly and equitably improve access to high quality and reliable broadband, and offers wholesale download speeds of up to 50Mbps download and up to 20Mbps upload³. This is significantly faster than the service most rural and rural residential communities currently experience. Importantly, unlike ADSL services, those speeds are accessible across the community and not just for properties in close proximity to the infrastructure.

Further, the **nbn**TM Fixed Wireless network has been designed to service a known number of simultaneous subscribers to any one facility, which ensures that the wholesale service will be stable and reliable, and mitigates the kind of fluctuations in speed experienced as a result of congestion on both ADSL services and

¹ www.nbnco.com.au/content/dam/nbnco2/documents/soe-shareholder-minister-letter.pdf

² www.nbnco.com.au/content/dam/nbnco2/documents/soe-shareholder-minister-letter.pdf

³ **nbn** is designing the **nbn**TM to provide these speeds to our wholesale customers, telephone and internet service providers. End user experience including the speeds actually achieved over the **nbn**TM depends on some factors outside **nbn** control like equipment quality, software, broadband plans and how the end user's service provider designs its network.

mobile wireless. People's usage of the network will still vary, but the set number of serviced premises in each area means that the bandwidth per household is designed to be more consistent, even in peak times of use.

Will we be able to see the tower anywhere from the village?

Yes. The facility will be visible from the village, but at a distance of 1.6km, it will dominate the landscape. Numerous structures are visible in the skyline from Menangle village, including high voltage electricity lines, and telecommunications towers, such as the very large telecommunications lattice tower at Gilead.

nbn is proposing this location because it maximises separation to the village as much as possible, minimising impacts on amenity. **nbn** appreciates that visual amenity is closely linked to heritage values at Menangle, and the visual impact of the proposal will be addressed in the Development Application, including photomontages taken from various vantage points along Woodbridge Rd and from the village itself. When the Development Application is lodged to Wollondilly Shire Council, residents will be able to view the photomontages in the DA, and **nbn** will also put them on display at an Information Session. **nbn** expects to lodge the DA to Council in August.

Heritage Impact Assessment

nbn understands that heritage values are of paramount importance to the Menangle community, and in keeping with appropriate due diligence, we have commissioned a Heritage Impact Assessment of the impacts of the proposed facility on the Elizabeth Macarthur Agricultural Institute, immediately surrounding heritage items, as well as Menangle Village Conservation Area and the Landscape Conservation Area.

The Heritage Impact Assessment will be appended to the DA when it is submitted to Council, and the community will be able to review the assessment at that time.

Impacts / Interference with coal seam gas and long wall mining operations

nbn is aware that coal seam gas wells are present at the Elizabeth Macarthur Agricultural Institute, and does not expect that the proposed facility will interfere with existing coal seam gas or long line mining operations in the *Camden Gas Project*. However **nbn** will liaise with mining operators as necessary in the detailed design of the foundations for the proposed facility.

Effects on the farm / wildlife / ecology?

The proposed facility will have no impact on farming operations at the Agricultural Institute, or the wider surrounds. It has no impact on air quality, water quality or soil quality, and **nbn** highlights that the proposed location has been chosen not only to maximise separation to the village, but also to avoid the need to remove any vegetation, to clear land for access. **nbn** considers the proposed location to result in negligible disruption / impact to agricultural activities at Menangle.

With regards to wildlife and the local ecology, as above, **nbn** advises that the proposed site has been chosen because it is cleared land with no vegetation removal required. There is no evidence to suggest that the proposed facility, which transmits radio frequency signals, the same kind of signals as AM and FM radio broadcast signals, and TV broadcast signals, has any impacts on either native fauna or domesticated animals.

We highlight that telecommunications facilities are permissible in national parks, but only when it can be proven that no other viable alternative exists to the placement within a national park. (The greatest ecological impact of placing telecommunications facilities in national parks is the vegetation removal required to introduce power and access, which threatens flora species and removes habitat.) The Australian Communications and Media Authority's (ACMA) Register of Licensed Radio Communications Licenses⁴ demonstrates that there are more than 100 licensed radio facilities located within national parks across Australia.

We also note that telecommunications facilities and birds coexist in many locations all over the world. Mobile carriers Telstra and Optus have even been directed by Councils to design several of their facilities with

⁴ http://web.acma.gov.au/pls/radcom/register_search.main_page



manmade bird nests on top, particularly to accommodate Ospreys, which have been known to nest on top of some facilities, taking advantage of their high vantage point.

Once constructed, with the exception of annual service visits, the proposed facility would operate unmanned and remotely and will not result in an increase visitation of the site or any increased impact on the environment.

General Public Health & Safety

nbn has provided a separate and very detailed fact sheet for the Menangle Community Association regarding the safety and operation of radio networks, and we hope this gives Menangle residents peace of mind about the safe and responsible operation of the fixed wireless network.

Further DAs / More Housing

nbn advises that co-location of additional telecommunications antennas on the proposed facility, if approved, is possible, and that both local councils and the federal *Telecommunications Act* encourage co-location where appropriate to stop the unnecessary proliferation of large structures in the urban and regional environment. (**nbn** always co-locates on existing structures as a first priority where co-location is feasible.)

The impact of potential additional antennas on a facility so far removed from the village is considered minor, and any additional antennas from third parties would require a new environmental compliance report to demonstrate the cumulative impact of existing and proposed antennas radio signals against safety standards.

nbn does not believe that the proposed facility will attract additional housing at Menangle. All communities across Australia are destined to receive an **nbn** service (via fixed line, fixed wireless and satellite services), and Menangle therefore will be no different to any other rural community in that respect. The facility does not have the capacity to provide a service to significant tracts of dense residential development, and is considered an appropriate and effective technology for smaller communities and rural communities such as Menangle. We do not believe the facility will stimulate residential development at Menangle, but it will improve services to the existing development.

Consultation / Timing

The proposed facility requires a DA to be lodged to Wollondilly Shire, and **nbn** intends to lodge the DA to Council late in August. In addition to the statutory consultation for the DA, conducted by Council as per NSW planning law, **nbn** commenced informal liaison with the Menangle Community Association in July (which has resulted in the provision of this Q&A) and will hold two Community Information Sessions for the entire Menangle community in September. We are planning on holding the two sessions on Monday 18 September - one in the afternoon and one in the evening. **nbn** will confirm the date in our invitation letter to residents.

nbn will be writing to all households in the Menangle village, as well as surrounding rural properties advising residents directly of the proposal, and inviting them to the Community Information Sessions. We will also place an advertisement in *The Menangle News*, and provide a copy of the ad to the Menangle Community Association for use on local social media community noticeboards.

We encourage residents who are interested in the proposal (both for and against) to participate both in the informal, proactive **nbn** consultation, as well as make a submission to Wollondilly Council in response to the statutory consultation that Council will undertake.

We look forward to discussing the proposed facility with the community. In the meantime, community inquiries can be directed to Jacqueline Crompton, Fixed Wireless Community Relations Advisor, at nbnwirelessnsw@visionstream.com.au.
