



About NBN towers and the rollout of fixed wireless

## Description



A community meeting at Pitt Town about the NBN rollout

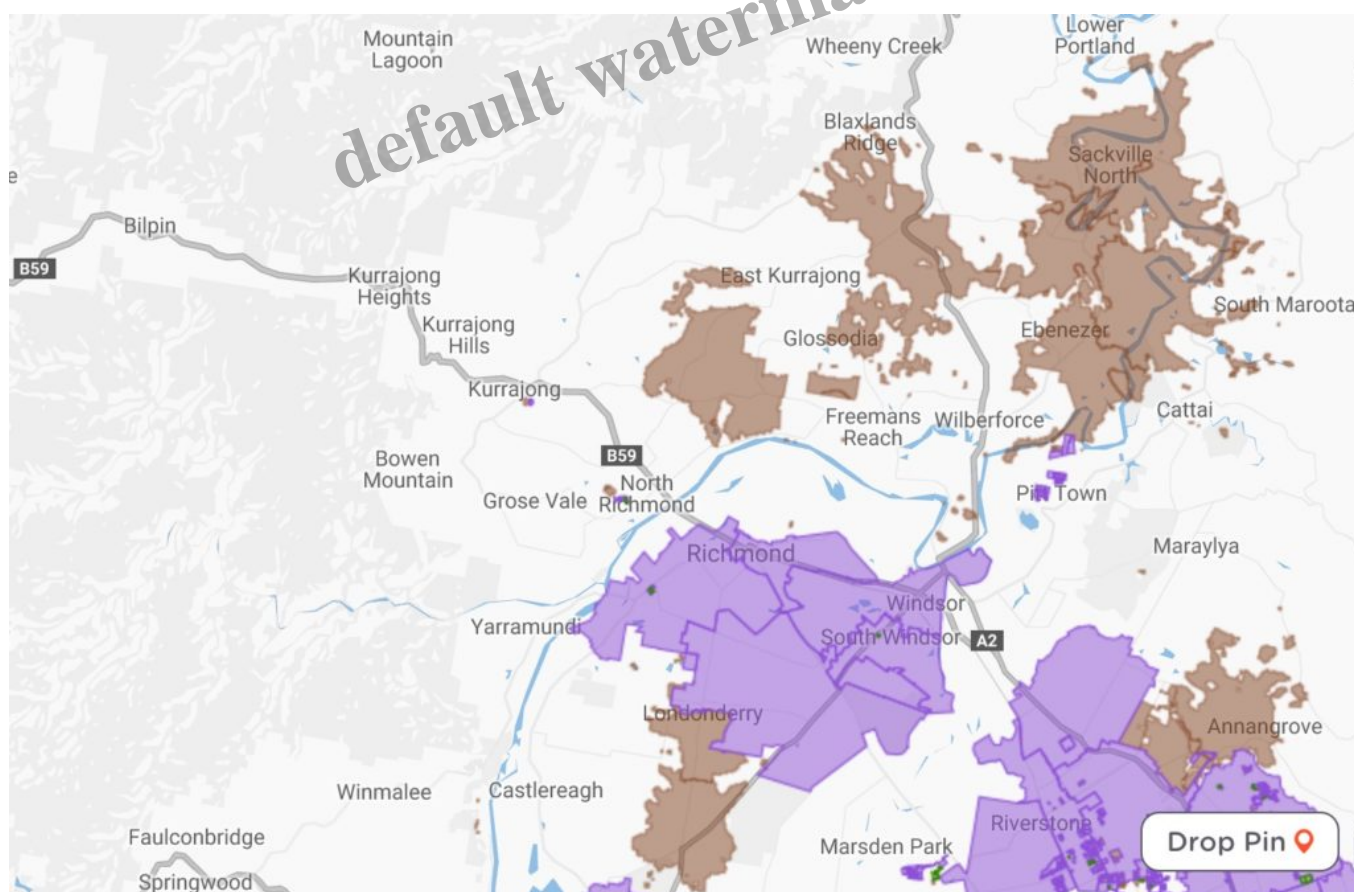
We've all waited far too long for better Internet broadband in the Hawkesbury, especially for many of the rural and acreage properties in the district.

Frustratingly, there isn't much of the newer, faster NBN broadband outside the Richmond/Windsor area, excepting the northern fringe of the larger urban rollout that has petered out just at the southern edge of Oakville. I'm as frustrated as the rest of you — faster broadband was promised to us years ago, and [promised schedules only a year old](#) were broken almost immediately.

NBNCO have been running community information sessions around the Hawkesbury as part of the process of the ongoing build process. I attended one of them recently at Pitt Town Sports Club, but others are being held for pending locations at Maraylya, Wilberforce, Cattai and elsewhere.

The most significant development announced was NBNCO's intention to roll out broadband via what they call "fixed wireless" rather than by the "fibre to the premises" (FTTP) method used to date. Fixed Wireless is supposed to be different in execution to the kind of cellular network you use for your mobile phones — each tower will serve up to about 100 houses and each house will have a directional dish and a point-to-point link back to the local tower with a guaranteed amount of bandwidth (unlike your cellular mobile phone, where all bandwidth is shared). Unfortunately, fixed wireless at launch will give about half the bandwidth fibre would deliver (50Mbps down and 20Mbps up for fixed wireless, versus 100Mbps down and 40Mbps up for fibre), even though this is still far better than most people are getting now through their ADSL2 connections over Copper. For example, I measured the bandwidth of my ADSL2 connection at Oakville just now using [Speedtest.net](https://www.speedtest.net) and got 2.58Mbps down and 0.75Mbps up. That's awful! — worse than ADSL1, but I know that it's because I'm over 5km from the local exchange. Attenuation over copper is a fundamental limitation of ADSL, so there's nothing to be done about it.

NBN — in any guise, is a huge step up.



Hawkesbury NBN progress at December 2016. Purple is active now – brown is “under construction”.

So, it might seem that anyone who was originally promised fibre but is now being offered fixed wireless

should feel unhappy. However, NBN officials promised that new-generation wireless technologies ([such as 5G](#)) will substantially boost the throughput within only a couple of years, and that customers about to get Fixed-Wireless NBN will be upgraded at that time.

Me? I'm agnostic about technology choices made NBNCO are making because the best new-era broadband for me is the one with *the best chance of arriving this decade*. I could hold out for something that will never arrive, or would cost me [thousands of dollars to switch to](#). It's already overdue, let's get it done. I suspect most Hawkesbury residents feel the same way.

Anyway, these were the facts laid out at the information session. I was there in my role as a Councillor, but it's worth pointing out that Council has nothing to do with the technology choices NBNCO make, and very little to do with the process as a whole. Council acts as the consent authority for applications to install communication towers, but that's about it. The tower proposed to serve the Maraylya area, for instance, is in the Hills Shire Council area and Hawkesbury Council won't have anything to do with it.

I'm bothering to write about this because of something I learned that had nothing to do with Council. It was something I learned about human behaviour. I have noticed this before but it is newly relevant to me as a public representative.

I've worked in I.T for over 20 years, so I know a bit about technology. I studied Science method for my Masters degree in teaching, and regard myself as a Science nut. And frankly, most of the unhappy people at the (at times heated) community meeting I went to were ignorant of the scientific facts.

I saw a lot of people with genuine, but poorly founded fears about the impact of wireless technologies on their health. Even though they had lived alongside mobile phone towers for decades, they were convinced that these new NBN towers would irradiate them and give them cancer. One gentleman, on the wrong side of 60 or so it seemed, got up and proclaimed that he was worried about the effects of NBN radiation on the motility of his sperm. No, I'm not making this up.

As a politician, angry constituents made angry by something that's Not Their Fault™ are usually seen as grist for the mill, and are a prompt for soap-boxing, tub-thumping and general denunciation of the angriness-causing-thing.

However, on this occasion, I was surprised, and I felt a little embarrassed. These were people I knew personally; who were constituents in my neck of the woods. And they were, as I came to realise as I listened to them, mostly wrong about most of the things they were anxious about. In my opinion, the NBN representatives were saintly in their patience as they fielded the many questions they received, trying to convey scientific facts to a lay audience.

But, misguided fears are not insincere fears, and the people were entitled to answers about whatever they worried about, so let's unpack them.



Radio frequency radiation is regulated by Federal standards to protect public health. The chief body is ARPANSA, the Australian Radiation Protection and Nuclear Safety Agency. ARPANSA has a lot of documentation describing [the general risks of RF radiation](#), and of the [risks attendant on NBN wireless technology specifically](#). It would appear that most people at the meeting either didn't know about that, or specifically chose to be skeptical based on other [non-authoritative research](#) they may have done on line.

What troubled me about the tone of the meeting I attended was that some people's Googling was accepted as having as much merit as ARPANSA's authoritative role in determining absolute and relative risk as regards exposure to radiation. People are always free to hold their own opinions, but are not entitled to their own facts. This is an observation we can relate directly to the recent and inexplicable election of Donald Trump.

So let's be clear: The radio technology used in the NBN program is not harmful to human health. I'm convinced of that. If that's the basis of your objection to the NBN, then I'm afraid we just won't agree. No, Council aren't really involved anyway, but that's my view.

As a public representative, my job is to acknowledge the sincerity of concerns expressed to me, regardless of their foundation. I saw a lot of people sincerely worried about whether the move to wireless technologies to deliver the NBN was going to have a harmful health effect on them and their families. I listened carefully. However, rather than siding with them to gain political brownie points, I think it's more important to educate people and to work to dispel their fears with well-explained and factual information. Some people won't thank me for that, but it's the right thing to do. Beyond this, there are undoubted advantages to finally getting the NBN activated for the huge number of Hawkesbury residents living on acreage properties and for whom this can't come soon enough.

So, for what it's worth, I'm fully supportive of the NBN program and *so long as wireless technologies eventually provide similar bandwidth as fibre* (as we were promised it would), I have no objection to the mode of delivery.

-Councillor Zamprogno.

## Category

1. Uncategorized

## Tags

1. NBN
2. Broadband

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