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2018 Regional Telecommunications Review Secretariat  
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### **Submission to 2018 Regional Telecommunications Review Committee.**

The Tumbulgum Community Association (TCA) makes this submission to the Regional Telecommunications Review as the local organisation representing the interests of the Regional community of Tumbulgum, NSW and its surrounds.

The TCA is making this submission in the context of the following "Key areas of Interest" identified in the Regional Telecommunications Review 2018 Issues Paper <http://www.rtirc.gov.au/docs/rtirc-issues-paper-2018.PDF>:

- Government Investment (in Telecommunications Infrastructure), and
- Re-thinking consumer protections and policies - A new Universal Service Guarantee.

### **About Tumbulgum**

Tumbulgum is a small thriving community located on the Tweed River, 10 kms north east of Murwillumbah, in the Northern Rivers region of NSW. The 2016 Census identified 666 residents in Postcode 2490 which covers the village itself and nearby rural area. Seven (7) commercial enterprises are located along the riverfront. As is the trend, the village is also home to an increasing number of independent contractors.

People who may be in the area at any time are a mix of village residents, village businesses, nearby rural residents and rural businesses, as well as visitors enjoying leisure activities in the village. On the Tweed River and in surrounding areas.

Our Community Web Site <https://tumbulgum.wordpress.com/> may provide additional useful background.

### **Local Telecommunications Services and Requirements**

The Tumbulgum community and its visitors rely on varied means of communications for their day to day activities, similar to most communities across the country.

Tumbulgum and its surrounds are served by a range of Telecommunications services, including:

- Fixed line services, such as fixed line telephony and ADSL Internet services - delivered over Telstra maintained rural infrastructure via various retailers;
- NBN based services implemented over NBN Fixed Wireless infrastructure, which include voice services (VoIP) and Internet based services via various ISPs;

- Mobile Telecommunications services, delivering call, text and data services via various infrastructure providers and retailers.

These services are used by home consumers and local businesses for activities typical of such parties, as well as visitors who may have different expectations of Telecommunications access and quality more typical of their point of origin (e.g. major centres and built up areas with more extensive infrastructure).

The services outlined above largely meet the community's various expectations, within the constraints of the limitations of such infrastructure in a rural area. For example: distance vs performance constraints of ADSL services; distance and topography constraints for NBN fixed wireless connectivity; and mobile capacity and coverage variability across an undulating landscape.

### **Criticality and Efficacy of Telecommunications Services**

The Tumbulgum community, despite its idyllic location, is subject to regular flood events, as with other communities in the Northern Rivers region of NSW. These can vary from: minor floods which only impact on public land adjacent to the river; significant inundation affecting public roads, facilities and private properties; through to inundation of living areas of homes and businesses. In the latter case, as per the Cyclone Debbie event in 2017, access to and from the village is only possible via boat or helicopter.

During such events, effective communications are critical to enabling residents and visitors to be aware of developing situations, as well as keeping abreast of progress as these events unfold.

In addition to other forms of communications such as broadcast radio, Television, print media, effective and reliable Telecommunications plays an increasingly critical role in keeping the community informed and safe during these events. An example of this is maintaining access to the Bureau of Meteorology website for Weather Warnings, monitoring current and projected precipitation, as well as river heights.

The unprecedented flood event arising from Post Cyclone Debbie in 2017 made it abundantly clear that there were shortcomings in the infrastructure underpinning Telecommunications services in the area.

These may be summarised as follows:

#### **a) Fixed Line Services**

It is well known that water inundation of rural copper- cable - based infrastructure renders this infrastructure unable to maintain the various services delivered over it, either totally or with significant degradation, both while the water is in place and for varying periods afterwards (which can be many months) until the elements dry out and/or service technicians can make suitable repairs.

As such, delivery of warnings and vital information over this infrastructure during, and in the recovery from, inundation events cannot be relied upon.

Alternative Telecommunications infrastructure, such as Mobile networks and NBN, are necessary to substitute for or supplement the copper-based infrastructure during such events.

## **b) NBN based services**

The implementation of NBN Fixed Wireless services in Rural areas provides an alternative means of service delivery to historical Fixed Line Services.

NBN Fixed Wireless services have been implemented in the area including Tumbulgum and its surrounds over the last two years.

In some respects, they have been treated as alternatives to, and replacements for, Fixed Line based services – particularly in light of the limitations of those services outlined in the previous item. This view has been encouraged by various Government's promotion of NBN as the new default fixed Telecommunications Infrastructure delivery method.

However, as was shown during the Post Cyclone Debbie event in the area, the specific local implementation of elements of the NBN infrastructure led to this being rendered unserviceable for the most critical periods during and after this event. This at the same time the historical copper-cable based infrastructure was in most cases rendered inoperable or severely degraded.

Copies of correspondence are attached regarding approaches made by the TCA to the relevant Authorities and Government on this, particularly seeking rectification of design failings prior to similar events occurring again.

## **c) Mobile services**

At times when fixed infrastructure services are compromised, mobile services are often seen and used as a backup alternative. This can be for conventional Telecoms activities (eg, phone calls and texts) or for data services (eg, Internet, Social Media interactions and information sharing, et al).

Mobile infrastructure implementation to ensure comprehensive coverage and capacity is often problematic in rural areas.

Infrastructure investment decisions are made by the three main infrastructure providers (Telstra, Optus and VodaPhone) in provisioning their mobile networks. Where there is insufficient customer demand, coverage and/or capacity can be compromised for customers of retailers providing services over one or all of these networks.

Governments have recognised this and provided “black spot” funding - <https://www.communications.gov.au/what-we-do/phone/mobile-services-and-coverage/mobile-black-spot-program> - which, augmented with funding from the Network Infrastructure Providers and other interested parties, has stimulated provision of additional or improved mobile infrastructure and hence coverage and capacity in areas that would not otherwise be commercially viable.

For example, one of the local Telstra base stations at Farrants Hill was provisioned for improvement in Round 1 of the Black Spot Program.

However, for the Tumbulgum village and surrounding areas, mobile coverage can be “marginal” and even non-existent at times – across all providers. There are various good and bad locations, even within the more densely populated village itself, depending on whose network a specific customer's retailer is using. Even those on Telstra based services suffer the same variability, despite any benefits that may have ensued from the Black Spot upgrade.

The net effects of the issues identified above were to prevent or compromise access to important information critical to the well-being, health and safety of residents during a significant event.

While such an event was unprecedented, the expectation should be that similar events of lesser and possibly similar or even greater magnitudes will occur again, and efforts should be taken to ensure that the various Telecommunications Infrastructure can be made “fit for purpose” where this is feasible.

It should also be noted that mains power was still maintained to most of the premises in the village as well as the surrounding communities during the entire sequence of events. Loss of power to individual premises was due to local issues such as submerged switchboards and wiring in individual premises, and power was quickly restored across the village after water levels fell and once safety of each individual premises’ infrastructure was verified by qualified tradespersons.

## **Conclusion**

While the above has outlined the experiences of our own local community, we are sure that similar experiences are shared by other communities at various times across the country.

In the light of the experience our community has been through, and in the interests of greater learning from this experience, the Tumbulgum Community requests that the Regional Telecommunications Review 2018 consider the criticality of reliable Telecommunications in times of greatest Community need when:

- Making recommendations regarding suitable Investment in Telecommunications Infrastructure; and
- reviewing and defining any Universal Community Guarantee.

Kind Regards

(Mrs) Jenny Kidd  
President  
Tumbulgum Community Association  
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## **Attachments:**

- Attachment 1 -Email to NBN Co and NBN response re Service Outage during/after Cyclone Debbie sent 5/4/2017
- Attachment 2 -Letter to Federal Minister for Communications re NBN and Australia Post services dated 7 April 2017 - sent via email.
- Attachment 3 -Email to NBN Attendee at Tumbulgum Post Flood Community Forum sent 6 June 2017
- Attachment 4 -Response from Department of Communications and Arts to 7 April 2017 letter – dated 1 May 2017
- Attachment 5 -5 May 2017 Email to Federal Minister for Communications in response to Department of Communications and Arts letter dated 1 May
- Attachment 6 -Response from The Office of Minister Fifield dated 1 December 2017