



Mt Wilson/Mt Irvine Rural Fire Brigade
Mt Wilson Fire Station
The Avenue
MT WILSON NSW 2786

SUBMISSION TO REGIONAL TELECOMMUNICATIONS REVIEW 2021

PURPOSE OF THIS SUBMISSION

The Mt Wilson/ Mt Irvine Rural Fire Brigade (Brigade) is making this Submission to provide the Review with a local emergency services perspective on the current state of particular aspects of telecommunications in the Brigade's area of operation and their impact on the effectiveness of the Brigade and other emergency services.

As our mission is to protect local life and property, our Submission focuses on those aspects of telecommunications which have the most impact on our operations, being mobile telephone and telephone landline services.

While our perspective is local, we believe that our perspective has wider application in building preparedness and resilience in our national telecommunications systems during natural disasters, localised emergency situations and more broadly.

Our Submission has been prepared on this basis and addresses particular aspects of the Review's Terms of Reference, being:

- Paragraph 4 d. - service reliability and impacts on customers and communities in regional and remote areas; and
- Paragraph 5 a. - whether changes are warranted to existing Government policies and programs to ensure they continue to be effective, fit for purpose and are maximising the social and economic potential from existing and emerging technological advances. In relation to the Government's ability to influence telecommunications providers to improve their service offerings, availability and reliability, we are seeking service level obligations with the required levels of specificity together with appropriate enforcement.

Our Submission also supports the representations made by Our Brigade Executive Member, Elizabeth Montano, at the Review's public hearing on 14 September 2021. We were grateful for the opportunity to speak with Reviewers.

We are aware of Submissions being made to the Review by our two community organisations: the Mt Wilson Progress Association and the Mt Irvine Progress Association. Their Submissions will, understandably, comment on other telecommunications issues, such as NBN and ADSL services and the impact of poor telecommunications on residents' ability to work and live.

WHO WE ARE, WHERE WE ARE AND WHO WE PROTECT

The Brigade has a perspective beyond fire-fighting. Due to our remote location, in addition to undertaking the usual New South Wales Rural Fire Service activities of a local RFS Brigade, we also comprise the local NSW Ambulance Clinical Volunteers (formerly, Community First Responders) as an integral part of our Brigade.

We also undertake the various community safety tasks usually undertaken by the State Emergency Services (there being no local SES unit). We attend and assist NSW Police and the NSW Fire Service in connection with motor vehicle accidents, mainly along Bells Line of Rd, as well as working with Police Rescue on Search and Rescue taskings in the Wollongambe Canyons and Bowens Creek to the North and East of Mt Wilson.

In all these activities, our Brigade supports our communities, visitors and other emergency services through a wide range of natural disaster events, such as severe windstorms, snow storms and high rainfall events leading to flooding and consequent damage.

Mt Wilson and Mt Irvine (together “the Villages”) are isolated communities surrounded by the Blue Mountains National Park which forms part of Greater Sydney. The Villages are on the northern edge of both the Blue Mountains City Council local government area and the Blue Mountains District of the Rural Fire Service. The boundary of the Hawkesbury City Council Local Government Area and the Hawkesbury District of the RFS is within 5 kms of Mt Irvine.

Access to both of the Villages is via one road being Mt Wilson Rd. This is a two lane sealed road which runs from the Bells Line of Road, along a very exposed ridge line and through dense bush with large trees growing right up to the road to Mount Wilson, a distance of approximately 8 kms. There is then approximately 11 kms of sealed winding road between Mt Wilson and Mt Irvine along Mt Irvine Rd which is similarly hemmed in by large trees.

Mt Wilson Rd and Mt Irvine Rd are often cut off during natural disaster events such as bushfire (1979, 1982, 1994, 2006, 2013 and 2019/20), wind and snow storms. They are also often cut off from each other.

The Villages comprise approximately 300 full and part-time residents, approximately 120 houses, numerous agricultural buildings supporting small scale farming, nut farms and historic gardens, some over 120 years old. Visitor numbers reach over 60,000 annually for farm gate visits, open gardens, canyoning, school and scout groups and bushwalkers.

The community also runs the Blue Mountains only artist-in-residence program from the historic Old School at Mt Wilson.

Our community has survived a number of natural disasters, including:

- the 2019/20 Gospers Mountain Fire (which destroyed two houses at Mt Wilson, significant rural infrastructure including sheds, machinery, outbuildings, gardens and fencing and telephone land line infrastructure across the two Villages. That fire also destroyed rare temperate rainforest which has never previously burnt.)
- the 2013 State Mine Fire (which destroyed two houses at Mt Irvine, and, as with the 2019/20 fires, destroyed rural

infrastructure including sheds, machinery, outbuildings, gardens and fencing and telephone land line infrastructure mainly but not exclusively at Mt Irvine).

- Other natural disaster events in recent times which have led to road blockages include the wind storm of July 2011 and a snow storm of October 2014. On both those occasions the communities were physically cut off from emergency services assistance. On both occasions, medical emergencies meant that there was severely delayed access to medical assistance. In the aftermath of the wind storm in 2011, during a medical emergency, it took seven hours for an Ambulance to reach a casualty with back injuries caused by a falling tree. The snow storm of 2014 caused a fatality due to a machinery accident. Our work during that tragic event was hampered by lack of both physical access due to road closures and poor telecommunications.

MOBILE PHONE SERVICE

The availability of mobile phones is widely regarded as a basic communication tool. As such it is an important part of the communications toolkit used by emergency services everywhere. Due to local extremely rugged topography and the lack of available mobile phone towers, the Villages have very limited mobile phone reception. We are largely in a mobile phone black spot area. We estimate that only about 20% of the area in which the Brigade works has reasonable 4G mobile phone coverage.

Those same topographical challenges make our RFS fire ground radios of limited, and in some places of no, use. The combination of the unavailability of both these forms of communications is of grave concern to our Brigade.

As all phone companies increasingly focus on their mobile phone systems and less on landline phones, mobile coverage becomes critical. Many of the services the Brigade and the community depends on are delivered via mobile systems. This includes critical communication between Brigade crews in the field and between fire control centres and the Brigade. It also includes systems which the community depends on in emergencies such as emergency SMS evacuations and other warning messaging.

In 2016 Mt Tomah (an adjacent mountain) was identified under the Mobile Phone Black Spot Tower program for a new mobile phone tower to service surrounding areas, including the Villages and traffic along Bells Line of Road. Despite the area having been so identified as being grossly inadequately served by mobile phones, the preliminary work for the tower was abandoned by Telstra in 2020 with no alternate solution currently planned. Despite enquiries we have received no explanation as to why an area previously assessed as needing this piece of essential telecommunications infrastructure is no longer considered appropriate for this Program.

Since the area was abandoned for a tower, the NSW Rural Fire Service has made another site on Mt Tomah available to Telstra (at no cost) and two other major telcos for the erection of a mobile phone tower. This is in addition to the three potential sites originally available to Telstra in their scoping work.

Due to the Villages' topography, while the installation of a properly positioned mobile phone tower at Mt Tomah will increase mobile phone reception for a significant area of the Brigade's operation, it will not provide coverage for parts of Mt Irvine.

As noted above, Mt Irvine is "as the crow flies" very close to Bilpin in The Hawkesbury. There is a clear line of sight between parts of Mt Irvine and the existing telecommunications tower on Bells Line of Road at Bilpin.

The mobile phone equipment currently on that tower does not assist Mt Irvine as it is positioned to cover traffic along Bells Line of Road in the Bilpin area. An additional dish positioned towards Mt Irvine would be a relatively low cost addition to which would greatly enhance the functionality of that tower.

TELEPHONE LAND LINES

With unreliable and extremely limited mobile phone service in and around the Villages, landlines play a pivotal role in our communications between our Mt Wilson fire station and Brigade members; between that station and RFS Fire Control and the Blue Mountains City Council at Katoomba and between our Mt Wilson station (where our Community Engagement Coordinator is based during emergencies) and individual properties in the Villages. They are also vital in medical emergencies when we have to deploy our NSW Ambulance Clinical Volunteers.

The landlines used in Mt Wilson and Mt Irvine connect to the Telstra network via a Facility at Mt Wilson (Telstra Facility).

The Telstra Facility at Mt Wilson comprises a metal shed and caravan, with a microwave transponder (which connects the Telstra Facility across the Grose Valley to Telstra infrastructure at Blackheath). The Telstra Facility is closely surrounded by dense bush and is extremely vulnerable to bushfire, wind storms and snow storms.

The Telstra Facility is not maintained to any level which protects the physical infrastructure from natural disaster events or even the usual extremes of weather experienced in high altitude rural environments. When we have taken this up with Telstra we have been advised that, according to their records, maintenance is undertaken. Our reliable experience and observations show that it is not.

This is a serious untreated risk to the resilience of that infrastructure (with potentially devastating impacts on our community and the Brigade's effectiveness).

Like many Rural Fire Brigades, we have few people available to prepare for fire as it approaches. So, to have to expend some of these limited resources to provide even minor preparations to protect the Telstra Facility from an approaching fire is particularly frustrating.

Our concerns about the vulnerabilities of the Telstra Facility, were realised on the evening of 19 December 2019 when it was endangered by the Gosper's Mountain Fire.

Through the effective lack of an Asset Protection Zone (APZ) around the Telstra Facility, the fire came within 10 metres of it. It took two RFS fire trucks and four Fire and Rescue trucks to defend the Telstra Facility over a long and tense night,

during which Brigade firefighters, some of whom had already done a twelve-hour day shift, backed up for another shift. That is how important land lines are to us.

The mopping up to ensure the fire did not again threaten the Facility took another day and another Fire and Rescue Unit several hours to undertake. Adjacent residents, all members of our Brigade, also undertook regular patrols of the Telstra Facility and surrounding bush in the following week to ensure that any flareups (of which there were several) were dealt with promptly. Had an effective APZ been in place, the required action to extinguish the fire as it approached the Telstra Facility would have been modest.

While it is the role of the Brigade and other fire fighting resources to defend assets such the Telstra Facility, it is not the Brigade's or any other fire fighting agency's job to prepare their assets for them.

A further dimension to the lack of resilience in Telstra's infrastructure is evidenced whenever mains electricity is cut to Mt Wilson and therefore, cut off for the Telstra Facility.

During the Gosper's Mountain Fire, the Villages were cut off from mains electricity (commencing on 14 December 2019) for between 11 days and 30 days (depending on each user's location).

During the period between 15 December and 18 December the Telstra Facility was shut down and thus no landlines were usable. As noted above, in an area with poor to no mobile phone reception such as ours, the loss of landlines in any emergency situation is of grave concern and seriously impacts our ability to protect our community.

The Telstra Facility failed on 15 December because the Telstra on-site back up battery has a life of only around eight hours. While Telstra did install a portable generator on 18 December, the generator was dependent on Telstra contractors refuelling the diesel fuel tank every two days.

However, as the portable generator powers the infrastructure via a standard power cord (easily disturbed by animals, adverse weather or falling trees), the generator power failed on several occasions before mains power was restored.

On one occasion the fuel ran out because a contractor had not refuelled it. The Brigade only discovered this on conducting an inspection of the Telstra Facility. On that occasion, the Brigade refuelled the generator but due to the poor connection arrangements, the generator still did not power the Telstra Facility.

That essential telecommunications facilities should be vulnerable to such poor maintenance and (effectively) non-existent business continuity arrangements is appalling.

We have communicated our concerns both verbally and in writing to responsible Telstra management a number of times. Since the 2019/20 fires there has been no improvement in the physical maintenance of the Facility. A photo of the Facility taken from the boundary of the Telstra lot on 26 September, 2021 is attached. While the Facility is only approximately 20 metres from the boundary, it is almost invisible from the boundary due to the heavy vegetation.

Another aspect of lack of resilience in Telstra's provision of landlines is that their design, construction and maintenance makes them vulnerable in the event of bush fires. Better, more robust cable pit design and maintenance to prevent the build up of flammable material in and around pits would assist to reduce fire damage and therefore the lengthy and expensive repairs needed to restore landlines.

WHAT WE ARE SEEKING

In relation to mobile phone service, we are seeking the provision of telecommunications facilities at two locations to substantially improve 4G mobile telephone reception in the Brigade's area of operation, in and around the Villages of Mt Wilson and Mt Irvine.

These facilities are:

- at Mt Tomah (or another appropriate site): the erection of a new tower or the installation of additional equipment on one of the existing telecommunications towers at Mt Tomah (whether that be undertaken as part of the Black Spot Tower Program or another Program); and
- near Bells Line of Rd at Bilpin: the erection of additional telecommunications equipment on the existing telecommunications tower.

In relation to telephone land lines, we are seeking improvements in the resilience and reliability of land lines through the Remediation and Network Strengthening Program currently being undertaken by Telstra. The strengthening of the physical resilience of the existing Telstra Facility at Mt Wilson should include:

- the permanent availability of alternate energy sources to support land lines when mains electricity is unavailable

- physical security of the Facility, including the creation and maintenance of an appropriate Asset Protection Zone around the Facility
- more robust cable pit maintenance and, when replaced, design

CONTACT PERSON

Our contact person for this Review is Elizabeth Montano, Member of the Executive of our Brigade, who is authorized to make this Submission on behalf of the Brigade and to further communicate with the Review if required.

The Brigade would also welcome the opportunity to further participate in the Government's community consultation on these issues.

27 September, 2021