

## Submission to the 2011-12 Regional Telecommunications Review

### Summary

- There are many regional communities in Australia that are located in terrestrial mobile phone coverage black spots. Gunns Plains, Tasmania, is a typical example.
  - In an economy and society increasingly reliant on mobile phone access these communities are significantly disadvantaged.
  - Mobile phone service providers like Telstra have no interest in or obligation to install base stations to serve these communities.
  - Satellite phones are not affordable and, even if they were, would not address most of the issues.
  - The rollout of the National Broadband Network provides the Australian Government with an excellent opportunity to deliver at marginal cost equitable mobile phone access to such communities using NBN infrastructure.
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### Questions addressed by this submission

**Question 16.** Are there any significant consumer issues specific to rural and remote communities that you consider are not being addressed?

**Question 21.** Are there any other issues relating to telecommunications services in regional Australia that you would like to bring to the committee's attention?

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### Gunns Plains – A Regional Community in Tasmania

#### *Location*

Gunns Plains is an inland rural community located on the Leven River in the north-west coast of Tasmania, 20 km south-west of Ulverstone. It is located on Tourist Route B17 from Ulverstone to Penguin with Wings Wildlife Park and Gunns Plains Caves as its main tourist attractions. It is an intermediate destination on the five day Penguin-Cradle Bushwalking Trail and a popular destination for fishermen and kayakers.

#### *Population*

For the purposes of this submission the community of Gunns Plains is defined as all residences located in the flats and slopes surrounding the township of Gunns Plains.

For the 2011 Census collection this included 79 residences in and around the valley and 21 permanent dwellings (cabins and caravans) at Wings Wildlife Park. Based on the national average of 2.5 persons per dwelling this gives an estimated population of up to 250 residents.

#### *Businesses*

There are two main tourism-related businesses in the valley, Wings Wildlife Park and Gunns Plains Caves. The local general store, Gunns Plains Goodies, and Leven Valley Vineyards

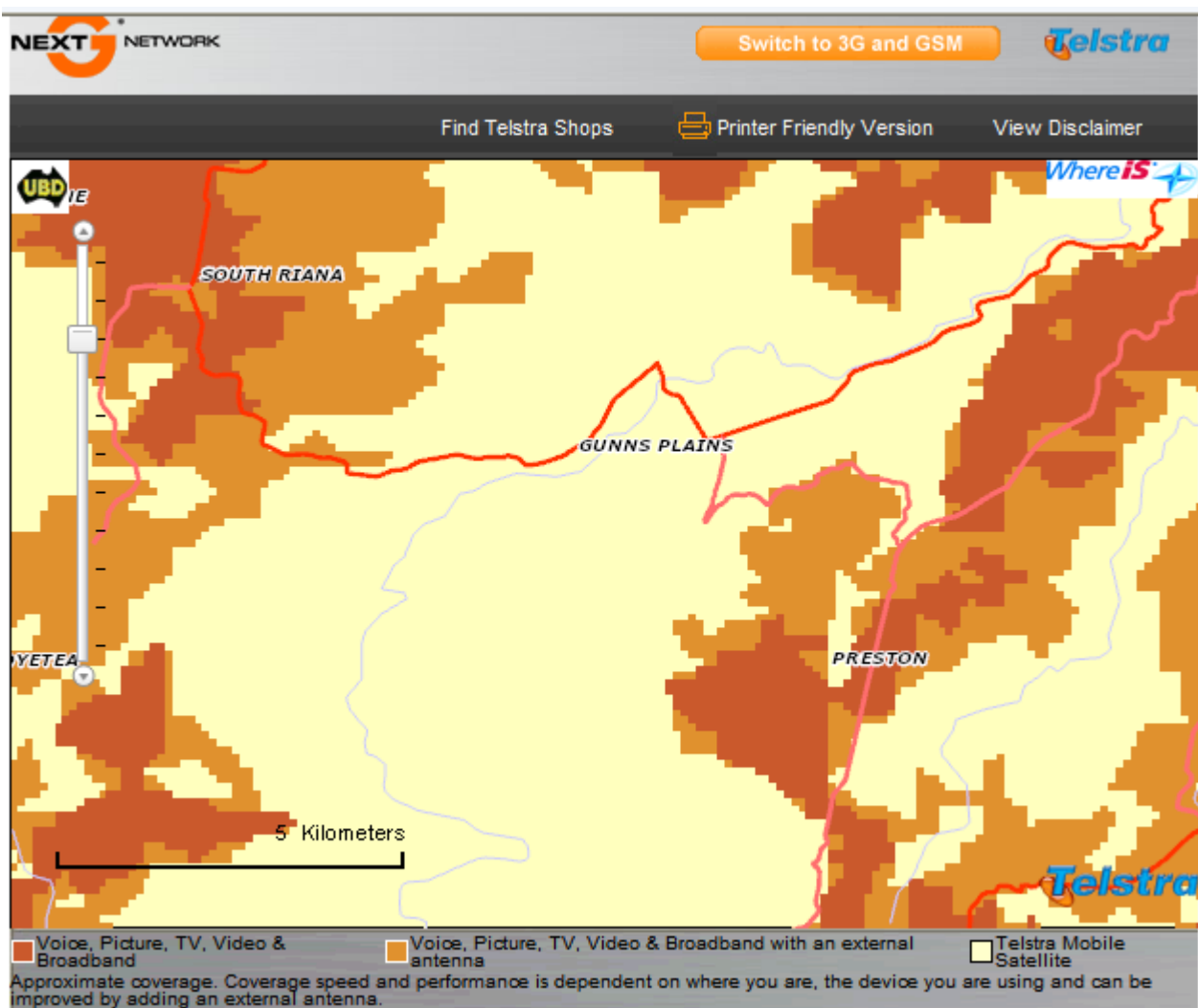
also rely heavily on tourist trade for their viability. Mathom Farm Goat Dairy and Werona Estate both have farm-stay accommodation.

The valley is home to a large number of dairy and cattle farms which rely heavily on outside services such as daily pickup of milk, machinery servicing, veterinary, fuel and equipment deliveries. In addition to the goat farm there is also a free-range piggery.

In a normal year Wings Wildlife Park attracts to the valley up to 60,000 tourists per annum and Gunns Plains Caves between 10,000 and 11,000 per annum.

### **Lack of Mobile Phone Coverage**

There is currently little or no mobile phone coverage throughout the Gunns Plains valley. Below is the coverage map of Gunns Plains for Telstra's Next G Network with the pale yellow areas having no coverage other than by satellite phone.



Based on anecdotal evidence the above map provides a fair representation of customer experience.

The two nearest mobile phone base stations are located at Sullocks Hill near Penguin (Telstra, Vodafone (inactive), Optus(status unknown) and at Loongana (Telstra) but due to the topography do not service the Gunns Plains valley.

### ***Lack of Public Payphone Service***

There is currently no Telstra payphone in Gunns Plains. Under Telstra's universal service obligations it is not obliged to instal a payphone if there are payphones within 40 km of the township. Telstra payphones are located at Gawler and Nietta, 19 km and 17 km, respectively, from Gunns Plains township.

### ***Attempts to obtain mobile phone coverage***

When the local TV retransmission tower for Gunns Plains was installed by Central Coast Council on a hill above South Riana Rd, about ten years ago, Telstra was asked to consider sharing the infrastructure for a mobile phone base station. At that time Telstra did not consider there to be a sufficient business case despite the reduced capital costs.

This year Telstra was asked to reconsider the business case given that the tower will become redundant for retransmission purposes after June 2013 when the move to digital television is complete.

With the intervention of the local Federal member, Mr Sid Sidebottom, Telstra responded to the latest request by explaining that the capital cost of installing a base station on the existing tower would be between \$300,000 and \$500,000, and that the estimated customer usage by Gunns Plains visitors and residents could not justify this capital outlay. Telstra indicated that residents would need to meet 100% of this cost for them to consider the installation of a base station on the tower.

As there are currently no Australian Government programs to deliver subsidised terrestrial mobile phone services to regional communities which are in coverage black spots there is little prospect of the Gunns Plains community being able to pay for a Telstra mobile phone base station.

Neither Vodafone nor Optus have been approached as alternatives to Telstra due to their demonstrated lack of interest in providing mobile phone services in regional locations.

## **Health and Safety Issues**

### ***Access to Emergency Services by residents***

Without mobile phone coverage the only way residents can contact the various emergency services (Police, Ambulance, Fire, SES) is via land line. As the level of outages in the valley is well above average and reconnection times are usually more than two working days, due to the Gunns Plains being classified by Telstra as 'Regional', there are significant periods when residents have no access to emergency services.

This lack of access is inequitable and is particularly concerning for elderly and infirmed residents, and to all residents during periods of higher risk such as bushfires, storms and floods. This increased risk is unacceptable given that Gunns Plains is only 20 km from Ulverstone.

During the 16 January 2011 floods the Bannons Bridge was washed away taking out the telephone landline to Bannons Rd residents leaving them without a means of communicating with the outside world. Mobile phone service would have provided a valuable backup communication method in this circumstance.

Also, when the \$1.3 million Werona Estate burnt down in the middle of the night in September last year, the residents escaped with their lives then had to drive to the fire

brigade chief's home to alert the emergency services. Mobile phone coverage would have allowed them to call 000 immediately saving 10-15 minutes.

### ***Access to Emergency Services by tourists, bushwalkers and outdoor activities***

As more than 60,000 tourists visit Gunns Plains each year on day excursions or overnight stays, the lack of mobile phone coverage in the valley and no public payphone increases their risk in the event of motor vehicle accidents or other incidents requiring the attendance of emergency services. It also reduces the likelihood of a successful outcome in the event that emergency services are required, due to the necessarily increased response time.

The unfortunate death of the bushwalker Jonathon Dent in the Dial Range in April this year may have been avoided with improved mobile phone coverage, or at the very least might have reduced the time it took emergency services to find him.

### ***Backup communications channel for Emergency Services***

All the emergency services in Tasmania use VHF radio for communications, but only the Tasmania Police use encrypted transmissions to enable privacy.

There are two instances when Emergency Services may use their mobile phones to communicate.

In the event that they are located in a VHF radio reception 'blackspot' they may resort to using their mobile phone for urgent communications. On 7 February last year, while on the scene at a motor bike accident on Gunns Plains Rd at Victoria Park, the Police were unable to contact their base from this reception 'blackspot' and, due to the lack of mobile phone coverage as backup, had to leave the scene to be able to restore communications.

Also, if the other emergency services need to communicate sensitive information to their bases, such as details of fatalities, they will routinely use their mobile phones to do this to avoid this information entering the public domain from people 'scanning' the emergency services channels.

### ***Ability to receive Emergency Alerts via SMS***

While not currently in use in Tasmania, SMS emergency alerts are likely to be implemented in the near future as it becomes standard practice across Australia for informing citizens at risk. While landline messages are a useful fallback for emergency alerts they require the resident to be at home by the phone, which is not always the case in emergencies. As with the previous risks having access to SMS is a matter of equity.

## **Commercial and Social Issues**

### ***Impediment for tourism***

In the present economic climate there are enough impediments to existing and proposed tourist ventures without the further disadvantage of no mobile coverage. Lack of mobile phone service in the valley is a disincentive both for owners and customers. Tourists expect to be able to use their mobile phones throughout Tasmania and are typically frustrated or dismayed at the lack of coverage in the valley.

### ***Inconvenience for tradespeople and travelling service providers***

Tradespeople and others servicing both businesses and residents are regularly frustrated by the lack of mobile coverage as they rely on continuous mobile coverage to conduct their business efficiently. Lack of coverage adds to costs and in some cases influences tradespeople to not service the valley, e.g. builders.

### ***Inconvenience for home businesses***

With the roll out of the National Broadband Network (NBN) in progress it is a given that regional and home businesses will have mobile phone coverage within the suite of technologies that will level the playing field. Under the NBN the majority of Gunns Plains residents will be eligible for satellite broadband service due to the limited availability of ADSL. Being limited to landline telephone communications is a significant disadvantage for existing and potential businesses based in the valley.

### ***Unavailability of services requiring mobile phone access***

With the rapid evolution of mobile devices and services that use the mobile phone network for internet access, e.g. Blackberrys and iPads, residents, businesses and visitors will all find themselves increasingly off-line when they are in the valley.

Taken together with the other risks and inconveniences mentioned above this has the potential both to drive existing residents from the valley and to significantly impede the growth and development of Gunns Plains as a desirable place to live and do business.

## **Alternatives to Terrestrial Mobile Phones to Address Issues**

### ***Satellite Phones***

Telstra and a number of other providers offer satellite mobile phone services that are available to residents of Gunns Plains. However, there are three major disadvantages:

- the high cost of handset purchase and satellite phone plans;
- this does not meet the needs of visitors to the valley (tourists, tradespeople, service providers etc) who will not have satellite phones; and
- the size and weight of handsets.

While the Australian Government provides an 85% subsidy on the handset purchase cost under the Satellite Phone Subsidy Scheme (available until 30 June 2013), reducing the cost of a basic handset to about \$200, comparative pre-pay or plan costs are typically two to four times those of a terrestrial mobile phone service.

With the Australian Government levelling the playing field for broadband internet access, it is unfair for regional communities who live in mobile phone coverage black spots to have to pay so much more for mobile phone services.

### ***Voice Over Internet Protocol (VOIP)***

Some satellite broadband internet service providers, including some of the NBN Interim Satellite Service providers, offer VOIP telephone as an additional service. However, the quality of the telephone service is limited by the quality of the satellite internet service. Typically the service has high latency, i.e. transmission is not instant as there are delays in transmission of 0.5 seconds or more. It is expected that the NBN Long Term Satellite Services will support low-latency VOIP.

Having VOIP telephone available addresses one of the issues for Gunns Plains residents, namely providing an alternative means of communicating with emergency services in the event of land-line outage. However, there will be additional cost for residents to active this service.

### ***Personal Mobile Phone Base Stations***

Technology is now available (e.g. Samsung 3G Ubicell) to transform one's home computer into a mobile phone base station, allowing you to use your mobile phone via your personal mobile phone base station attached to your computer. This effectively provides mobile phone coverage in and around one's home, and would address the same safety issue mentioned above. Naturally this solution suffers from the same delay problem experienced by VOIP using high-latency satellite internet connections. It is expected that the delay problem will be resolved by the NBN Long Term Satellite Services.

### ***Community Mobile Phone Base Station***

It is understood that the technology is or will soon be available to use the same network architecture to provide a base station to an entire community. Given the unwillingness of Telstra or other telecommunications service providers to install mobile phone base stations to service regional community black spots, this may be the ideal solution for communities such as Gunns Plains, provided it is affordable.

It is envisaged that the community could procure NBN Long Term Satellite Services to support a community-wide mobile phone base station. Given that a suitable centrally-located tower with power supply is already available in the valley, such a solution may meet the affordability criterion.

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## **Issues for Consideration by the RTIRC**

### ***Awareness of the impact of mobile phone service unavailability on regional communities***

With respect to Questions 16 and 21 from the Issues Paper, the 2011-12 RTR should be aware of the commercial and social impact of living in a terrestrial mobile phone coverage black spot. With the ever-growing expectation by the public and private sectors that citizens and consumers have mobile phone access, and the proliferation of wireless services, the negative impact on these communities should not be underestimated. There are many small communities in Australia like Gunns Plains.

### ***Opportunity for the Australian Government to provide low cost accessibility solution***

As service providers like Telstra will not install unprofitable mobile phone base stations without Government subsidy, the rollout of the NBN creates an opportunity for the Australian Government to deliver affordable mobile phone access to communities like Gunns Plains at marginal cost. The Australian Government would do well to task NBN Co and its satellite service providers to develop the technical solution to make this possible. The proposed use of the NBN to deliver these additional services would well received by Australian taxpayers.

Submitted by: John Thompson, Gunns Plains, Tasmania

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