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2015 Regional Telecommunications Review Secretariat
Department of Communications
GPO Box 2154
CANBERRA ACT 260

Dear Secretariat

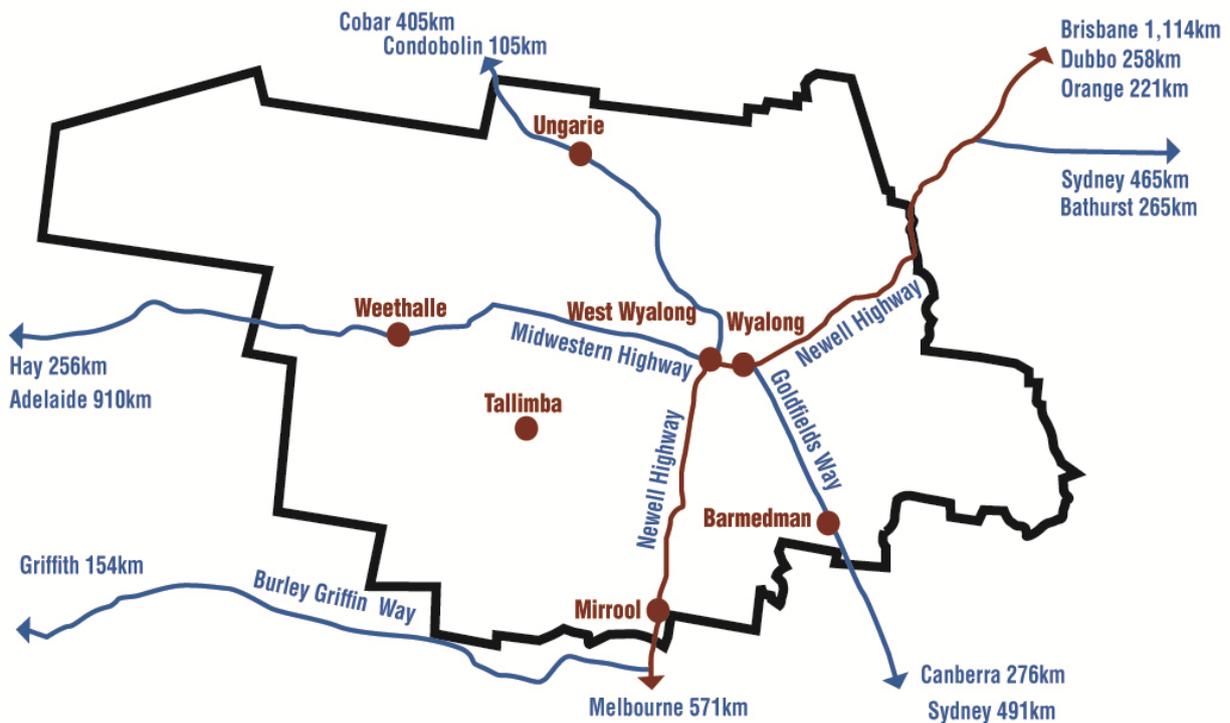
Thank you for the opportunity for Bland Shire Council to provide a submission to the 2015 Regional Telecommunications Review Issues Paper. Bland Shire Council has prepared this submission in support of our businesses, farmers, residents, ratepayers, motorists and visitors.

Background

The Bland Shire was proclaimed on 6 March 1906. The Bland Shire, West Wyalong is centrally located at the junction of the Newell and Midwestern Highways and Goldfields Way in regional New South Wales. The Bland Shire has a population of 5,865 and covers an area of 8,558 square kilometres. The towns and villages in the Bland Shire include West Wyalong, Wyalong, Barmedman, Mirrool, Naradhan, Tallimba, Kikiora, Ungarie and Weethalle.



The Bland Shire and West Wyalong central location



The Bland Shire

The Bland Shire is surrounded by the Shires of Lachlan, Forbes, Weddin, Young, Temora, Coolamon, Narrandera and Carrathool.

The majority of the land mass and roads in the Bland Shire have numerous black spots, extensive grey and shadow spots and mobile phone coverage failures. This not only proves difficult and frustrating for the businesses, farmers, residents, ratepayers, motorists and visitors, but also represents a specific risk during disaster and emergency conditions.

The Bland Shire's history is deeply engrained in agriculture and gold production which continues through to today. The Barrick Cowal Gold Mine commenced construction in 2004 with gold production in 2006 and in 2012, Barrick Cowal produced 268,000 ounces of gold.

The Bland Shire is one of New South Wales largest cereal-growing areas producing wheat, barley, oats, triticale, cereal rye, chickpeas, field peas, lupins, canola and sorghum.

Eucalyptus oil production started in 1907 and the West Wyalong area has become one of the major world exporters of Eucalyptus oil in Australia.

Q1. Do people in regional Australia believe their reliance on telecommunications differs from those in urban areas? How does it differ and can you provide examples?

Agriculture is the Bland Shire's largest industry sector and is at the heart of the Australian identity. Australia's history and economy was 'built on the sheep's back'. Today agriculture continues to play a pivotal role in building the wealth of Australia; this is why the sector is one of the five pillars of the Australian economy and why the Government has made agriculture a priority.

Agriculture is a significant contributor to the Australian economy. The value of farm production was \$51 billion in 2013–14 (ABARES 2015a). Agriculture contributed around two per cent of Australia's gross domestic product (GDP) and 15 per cent of total Australian merchandise exports

(ABARES 2014). Agriculture underpins Australia's largest manufacturing industry—food, beverage and tobacco processing—which added \$25 billion to the economy in 2013–14 (25 per cent of manufacturing GDP) (ABS 2015a). As the mining construction boom moderates it will be important to foster growth in other export sectors, including agriculture.

Many rural areas including the Bland Shire do not have access to the mobile phone and internet services that are taken for granted in urban Australia. Reliable mobile phone and internet coverage is critical for the future growth of Australia's agriculture sector. Today's trading environment requires real-time access to, and sharing of, information. Enhancing mobile coverage in regional and remote areas also has clear social, economic and safety benefits.

Access to reliable and affordable mobile phone and internet coverage in remote and regional areas is essential to Australia's future growth, and the growth of the agriculture sector. Improved services have the potential to revolutionise agriculture in Australia. For good reason communication coverage was the issue most often raised by the agriculture sector during the development of this White Paper. This is an area of critical importance to the Government.

The use of information technology has evolved from basic GPS to precision farming. The next frontier is 'big data'—or data-enabled agriculture, which will provide information to assist better decision making through real time delivery of relevant and specific knowledge. The potential for productivity gains through increasing yields, reducing costs and reducing agricultural risks is progressing through initiatives currently underway. These include Sense-T in Tasmania and the GrainGrowers ProductionWise programme. Farm machinery companies have developed applications that not only warn farmers of the need for maintenance, but also use data collected to facilitate real time benchmarking, further driving productivity gains. Today's farmers need access to mobile phone coverage and broadband internet to run their businesses efficiently. Those farmers that have access to these services are able to run their businesses from the stockyard, from their tractor or while they are harvesting. But communication services are often not available, or are unreliable or expensive.

While mobile carriers claim to provide coverage to 99 per cent of Australia's population, around 70 per cent of Australia's landmass does not have terrestrial mobile coverage (Commonwealth of Australia 2015j).

Traditionally, analogue phone services to regional Australia were funded via the Universal Service Obligation levy, however, these traditional policy responses need to be updated so that internet connectivity can be funded as an essential service.

Expanding mobile coverage to areas where it is currently inadequate or non-existent has clear economic, social and safety benefits. A study commissioned by the Australian Communications and Media Authority found that in the seven years to 2013, mobile broadband contributed 2.1 per cent of productivity gains in the agriculture sector (CIE 2014). Due to comparatively higher costs and lower levels of revenue, mobile network operators are reluctant to invest in extending coverage into regional areas on a commercial basis. To help address this, the Australian Government established the \$100 million Mobile Black Spot Programme.

The policy was designed to attract co-funding from other levels of Government and the private sector. The total investment as a result of the program is around \$385 million. A second round of investment in mobile blackspots was announced in June, with the Federal Government contributing an additional \$60 million. Source: The Agricultural Competitiveness White Paper <http://agwhitepaper.agriculture.gov.au/>.

The Bland Shire received two Vodafone towers from the Mobile Black Spot programme, one at Ungarie and Weethalle. Telstra has the best coverage in regional Australia and whilst the two new Vodafone towers are welcomed, the majority of businesses and residents in Regional Australia are connected to Telstra do to their better coverage.

Inadequate mobile phone coverage is a significant issue especially in regional and remote communities. This includes portions of major highways and transport routes, popular seasonal tourist locations, locations at high risk of natural disasters, and key mining and agricultural areas.

Mobile phone blackspots, extensive grey and shadow spots and mobile phone coverage failures adversely affect community resilience and increase the vulnerability of communities when the need for mobile communications is heightened.

Inadequate mobile phone coverage disadvantages individual communities and the wider national economy. Lives can quite literally depend on access to mobile phone coverage.

It is accepted that the Australian population is increasingly reliant on mobile services as a convenient utility for safety and emergency purposes. However, mobile phone blackspots, extensive grey and shadow spots and mobile phone coverage failures exist in regional and remote areas of Australia meaning mobile telephones services cannot be relied upon or do not exist in some areas.

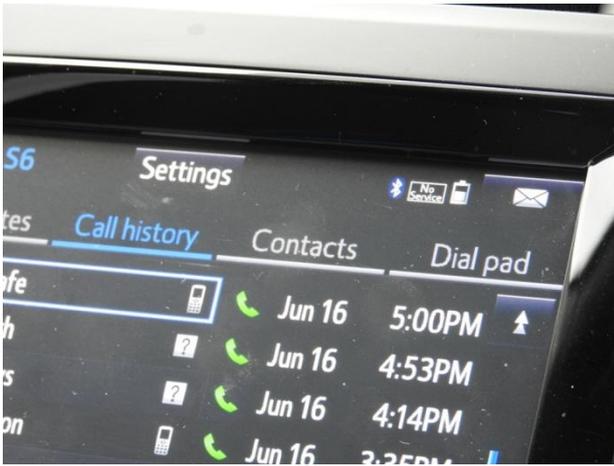
The majority of the land mass and roads in the Bland Shire have numerous black spots, extensive grey and shadow spots and mobile phone coverage failures. This not only proves difficult and frustrating for the businesses, residents, motorists and visitors, but also represents a specific risk during disaster and emergency conditions. In the case of farmers, often working alone on their properties, this is also an unacceptable health and safety risk.

The mobile phone coverage along the major transport routes, in small communities and in locations prone to experiencing motor vehicle accidents or natural disasters must be improved in the Bland Shire. The Newell and Mid Western Highways and Goldfields Way that traverse the Bland Shire all have black spots, extensive grey and shadow spots and mobile phone coverage failures. One suggestion would be to leverage off the rollout of the wireless National Broadband Network (NBN) to improve mobile coverage.

Provide open access infrastructure to improve coverage along major transport routes. Increased competition will sharpen incentives for carriers to provide better quality services and lower prices in regional areas, as it does in the cities.

Federal and State Government funding must be given to mobile phone network providers who are prepared to expand the coverage and quality of their mobile networks into regional and remote areas that lack sufficient coverage. There are some locations where the economic viability of expanding the existing network may be marginal, but modest government financial support may tip the balance.

The photographs on the next page were taken in a new model Toyota Kluger in the Bland Shire on different dates and locations and shows that there is no mobile phone service using the blue tick approved Samsung Galaxy S6 phone:



The regional and remote communities and the Bland Shire businesses, farmers, residents, ratepayers, motorists and visitors must have access to wider and more reliable mobile phone and internet coverage, and should have the same or if not better levels of telecommunications services as our urban counterparts. There are concerns that regional and remote communities and the Bland Shire businesses, farmers, residents, ratepayers, motorists and visitors will have a competitive disadvantage in the future if the Bland Shire and regional and remote communities can't offer a basic level of service or if not better levels of telecommunications services as our urban counterparts.

Q2. For those users already connected to an nbn network service, has the service met your expectations?

The fixed wireless NBN network has been rolled out to the following locations in the Bland Shire:

- West Wyalong – 310 available connections
- Ungarie – 310 available connections
- Barmedman – 250 available connections

Construction of the fixed line NBN for West Wyalong is scheduled to commence in late 2016.

A graphic designer based in West Wyalong has provided the following comments and they are hoping that the fixed line NBN will be a vast improvement on his current Telstra Internet:

Current internet connection speeds provided by Telstra Internet at my place of business in West Wyalong, NSW are:

Download speed = average is 17Mbps

Upload speed = average is 0.84Mbps

Latency = between 15ms & 50ms

Jitter = between 0ms & 9ms

As a graphic designer working from my studio, my business continues to suffer from the slow upload speeds provided by Telstra Internet. The service is weighted to provide reasonable download speed but leaves insufficient upload speed to enable my business to carry out online proofing with e.g., printers. In one particular instance (after 3 test trials) Alpine Press, Sydney (2nd largest print group in Australia) refused to carry out online proofing, as my upload speeds were so slow. This required a days physical trip to Sydney with computer to complete the job, plus a day to return. The minimum speed required by the printer for my upload to make the job practical was apparently 1.5Mbps.

My son works from my former home in UK where since 2011 he has enjoyed FTTP Broadband offering 100Mbps, his job entails downloading data from servers around the world reworking the data then uploading again. On a three month working visit staying with me in West Wyalong he estimated that he spent on average 2.5 hours more upload/download waiting time each day than he would have in the UK. Needless to say he is not keen to work from here again unless things improve.

My wife is an artist and is part of a group of 4 other artists who regularly exhibit together, being geographically distant they use Skype to communicate with each other and also group video calling with, Regional Art Gallery administrators, etc. She would like to use HD video in the group calls but as this requires a 1.2Mbps minimum upload speed she has to be content with a lower resolution that does not show paintings to best advantage.

Satellite is one of the most economic ways of delivering high speed broadband in areas where fixed wireless and fixed line services can be prohibitively expensive to deliver. However, satellite broadband has some limitations, such as limited monthly data allowances and fixed capacity during busy hours.

The NBN satellite, fixed line and fixed wireless infrastructure needs to be greatly extended to connect the regional and remote locations of Australia.

Q3. Having regard to the technical solution likely to be used in your area, do you have views on the adequacy of that solution in terms of meeting needs now and into the future?

Australia's three national mobile network operators (MNOs) - Optus, Telstra and Vodafone Hutchison Australia - collectively claim to provide mobile coverage to 99 per cent of the population (i.e. premises), around 70 per cent of Australia's landmass does not have terrestrial mobile coverage (Commonwealth of Australia 2015j).

The majority of the land mass and roads in the Bland Shire have numerous black spots, extensive grey and shadow spots and mobile phone coverage failures. This not only proves difficult and

frustrating for the businesses, residents, motorists and visitors, but also represents a specific risk during disaster and emergency conditions.

The Bland Shire covers an area of 8,558 square kilometres, and has a road network of 3,237 kilometres including the Newell and Midwestern Highways and Goldfields Way that conveys in excess of two million vehicles on an annual basis. Towns, villages and locations in the Bland Shire include West Wyalong, Wyalong, Ungarie, Weethalle, Tallimba, Barmedman, Mirrool, Kikoira, Gubbatta and Naradhan.

The Bland Shire also receives a large flow-through of population along our vast road network and highways as we are based centrally from most capital cities and are a large distance from other towns. More and more visitors and travellers are also accessing information from their smartphones and or mobile devices and when they stop they often make use of the opportunity to phone friends and family, use their tablets and computers and consequently put added pressure on the telecommunication infrastructure. The lack of consistent reliable mobile phone coverage reception has obvious safety consequences for not only the visitors to the Bland Shire but also the residents.

The Bland Shire is one of the largest winter cereal cropping districts in NSW and subsequently has a large number of contractors visiting the area to grow and harvest these crops who need consistent reliable mobile phone coverage.

Telstra mobile phone coverage needs to be established and improved across the entire Bland Shire, but particularly in the following areas:

- North, South, East and West of Weethalle
- North, South, East and West of Tallimba
- North, South, East and West of Ungarie
- North, South, East and West of Naradhan
- North, South, East and West of Calleen
- North, South, East and West of Gubbatta
- North, South, East and West of Barmedman
- North, South, East and West of Yalgogrin
- North, South, East and West of Mirrool

Areas just outside the Bland Shire that mobile phone coverage needs to be established and improved include:

- North, South, East and West of Burcher
- North, South, East and West of Wamboyne
- North, South, East and West of Rankin Springs
- North, South, East and West of Tullibigeal
- North, South, East and West of Marsden
- North, South, East and West of Caragabal
- North, South, East and West of Quandialla
- North, South, East and West of Arian Park

Q4. Irrespective of the adequacy of your local access, are there issues with backhaul or long distance carriage that impacts on your use of telecommunications services?

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As a result of the above the Bland Shire experiences substantial peaks in visitation which significantly impacts the capacity of the mobile networks, resulting in backhaul issues.

Q5. For users living in areas without mobile coverage, what priorities, other than specific locations, do you consider should be recognised in future efforts to improve coverage?

For the proportion of businesses, farmers, residents, ratepayers, motorists and visitors users who live and work in the many areas in the Bland Shire without mobile coverage, providing social and economic equity to all communities, businesses, farmers, residents, ratepayers, motorists and visitors especially now that digital communication plays such a critical social, economic and emergency role in the everyday lives of rural and remote communities, is of the highest priority.

The development of a Universal Service Obligation, in regard to mobile phone and broadband coverage must become of the highest priority for Government to ensure everyone in Australia, no matter their location, has access to mobile phone and internet coverage.

A suggestion in regional remote locations would be to leverage off the rollout of the wireless National Broadband Network (NBN) to improve mobile coverage.

Provide open access infrastructure to improve coverage along major transport routes. Increased competition will sharpen incentives for carriers to provide better quality services and lower prices in regional areas, as it does in the cities.

Federal and State Government funding must be given to mobile phone network providers who are prepared to expand the coverage and quality of their mobile networks into regional and remote areas that lack sufficient coverage. There are some locations where the economic viability of expanding the existing network may be marginal, but modest government financial support may tip the balance.

Q6. What opportunities do the mobile network industry see for extending coverage in regional Australia and increasing investment in mobile networks?

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Q7. Do you have any views on co-investment approaches that might help to improve the broadband technology outcome in your area?

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Q8. How might new applications and services that utilise mobile networks for voice and data transform the way you live and work?

According to the Australian Communications and Media Authorities Communication Report 2013 -14, mobile services are now at saturation levels with 2013–14 seeing the first, albeit small, decline in the number of mobile services in operation to 31.01 million mobile services—a 0.3 per cent decline on the previous year.

There is evidence of a similar slow down occurring in the growth of internet connections, with approximately 81 per cent of Australians (14.7 million) having an internet connection in the home, with growth slowing over the past three years.

Australians are engaging more intensively online, downloading more data and making greater use of mobile handsets. In the six months to May 2014, 68 per cent of internet users accessed the internet via three or more devices. Mobile phones and laptop computers were the most popular devices used by adult Australians to access the internet at May 2014 (76 per cent and 74 per cent, respectively). While use of mobile devices to access the internet has seen significant growth, fixed-line broadband (with subscriptions that generally offer faster download speeds and larger data plans than mobile handset internet subscriptions) nonetheless contributed 93 per cent of total growth in data downloads during the June quarter of 2014.

The total volume of data downloaded in Australia during the June quarter of 2014 was 53 per cent higher than the volume downloaded during the June quarter of 2013—data downloaded via fixed-line broadband increased by 53 per cent and downloads via wireless broadband increased by 20 per cent.

Australians have continued the shift towards over-the-top (OTT) and mobile communications for voice services, while the use of digital media also increased, with 44 per cent of adult Australians (6.4 million) streaming music, movies, TV programs, video clips or radio—a 21 percentage point increase over the past five years. Video and audio content is contributing to the continued growth in the volume of data downloaded.

The availability of higher-speed internet services on both fixed and mobile networks, larger data download plans and growth in the use of cloud content services are contributing factors to increases in streaming and downloading.

From a regulatory perspective, the compliance performance of Australia's communications and media organisations with regulated performance requirements has generally been very strong. Source: Australian Communications and Media Authorities Communication Report 2013 -14, <http://www.acma.gov.au/theACMA/Library/Corporate-library/Corporate-publications/communications-report>

Access to the internet in today's world is just as important as voice connectivity. Mobile phones are a tool for communication as well as a source for information. With new technology that means the internet can be accessed remotely, mobile phones bridge the domains of communication and information technology. As mentioned earlier there are 31.01 million mobile services in Australia that were accessing the internet by mobile devices. Connection to the internet is vital during natural and non natural disasters to be able to link to social media, weather maps and alerts etc, and the internet has huge economic benefits by enabling people to continue to undertake business without geographical restrictions. The Regional Telecommunications Review 2015 and the Mobile Black Spot Programme should therefore not just target or measure success against increased voice coverage but also measure against increased data coverage.

According to the Australian Bureau of Statistics there were 12,691,000 internet subscribers in Australia at the end of December 2014. This is an increase of 2% from the end of December 2013 and almost all (99%) of internet connections were broadband. The number of dial-up internet connections continued to decline.

Modern mobile phones allow you to:

- Voice
- SMS / MMS
- Send and receive emails
- To get information
- Entertainment purposes (music, games, photos, video)
- Visit websites and/or browse or search the Internet
- Banking including transfers and bill payments
- Buy things online
- Read or edit documents or files
- GPS / Maps
- Weather
- News
- Connect to other compatible devices

- Video calling and video conferencing
- Fast data exchange
- Apps
- Emergency SMS and Voice communication during emergencies and disasters

Some of the benefits, new applications and services that the NBN may deliver include:

- Healthcare / Telehealth
- Education / Remote learning
- Videoconferencing
- Gaming
- Smart Homes
- Flexible working, boost productivity / Working from Home
- Media & Entertainment
- More in-home information
- Faster two-way internet
- Small businesses / Interactive shopping
- Online Banking
- Communication with dispersed family members
- Cloud Computing
- Better business engagement, stronger relationships
- Connectivity counts, so does cutting costs
- New markets, new opportunities

Q9. What communications barriers have you experienced in expanding or operating your business or providing services, such as health or education? Have you been able to overcome these barriers and if so, how?

The Government should understand that reliance on telecommunications if anything, is far greater in regional Australia than urban areas. Mobile phones and internet provide the connections and infrastructure highways we need to compete in a modern society. Telecommunications requirements are the same in that today's business and social worlds are dependent upon high speed broadband internet and mobile telephony. The differences are in that provision of second rate, minimal GB plans severely impede regional and remote Australia to operate in an economically driven environment. Our businesses need to have the same infrastructure support as an urban business. Those of us in the agricultural sector need mobile phone coverage across our properties in order to provide safe working environments and businesses that can operate in a 24/7 business world. High speed broadband internet allows remote services through health and education to be provided to rural and remote communities, for agricultural business to operate in a productive manner and for families who educate through Distance Education it is a mandatory requirement for the current curriculum.



Running a business without quality telecommunications and mobile phone coverage is near on impossible as increasingly other parties require electronic interactions, invoicing, video conference, training and file transfers etc.

Q10. What communication functions (e.g. speed, mobility, reliability, data, etc) would best suit your needs, noting the limitations of each technology (e.g. mobile, wireless, satellite, fibre)?

The Bland Shire is seeking an effective telecommunications environment that will permit our businesses, farmers, residents, ratepayers, motorists and visitors to enjoy a reasonable quality of life, safety in times of risk and to conduct their businesses on a competitive basis.

Q11. Do we need to continue to guarantee the standard telephone service for all (or only some) consumers, and if so, to what extent?

Traditionally, analogue phone services to regional Australia were funded via the Universal Service Obligation levy, however, these traditional policy responses need to be updated so that internet connectivity can be funded as an essential service.

The development of a Universal Service Obligation, in regard to mobile phone and broadband coverage must become of the highest priority for Government to ensure everyone in Australia, no matter their location, has access to mobile phone and internet coverage.

Q12. Are there new or other services, the availability of which should be underpinned by consumer safeguards?

Traditionally, analogue phone services to regional Australia were funded via the Universal Service Obligation levy, however, these traditional policy responses need to be updated so that internet connectivity can be funded as an essential service.

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Q13. What standards should apply to your services? How might they best be enforced?

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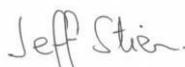
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Once again, Bland Shire Council welcomes the Australian Governments Regional Telecommunication Review and please do not hesitate to contact either Ray Smith on (02) 6972 2266 or rsmith@blandshire.nsw.gov.au or Jeff Stien on (02) 6979 0244 or jstien@blandshire.nsw.gov.au should you require any additional information.

Yours sincerely



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