

## Mobile Coverage Programme Discussion Paper Submission Cover Sheet

### Submission Information

This cover sheet should be attached to submissions made to the Department of Communications in relation to the Mobile Coverage Programme Discussion Paper.

#### Contact Details

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<b>Date:</b>	24 February 2014

#### Confidentiality and privacy

All submissions and comments, or parts thereof, will be treated as non-confidential information unless specifically requested, and acceptable reasons should accompany each request. Email disclaimers will not be considered sufficient confidentiality requests.

Respondents lodging a submission should be aware that submissions (excluding any information agreed to be treated as confidential information) will be made publicly available, including on the Department of Communications' website. Submissions and comments will be subject to freedom of information provisions. Despite a submission being identified as confidential or sensitive, submissions may be disclosed where authorised or required by law, or for the purpose of parliamentary processes.

Do you want all or parts of the submission to be treated as confidential? Yes  No

*If yes, identify below which parts of the submission are to be treated as confidential (and provide a reason):*

If the submission contains personal information of any third party individual, indicate on this Submission Cover Sheet if that third party individual has not consented to the publication of his or her personal information:

#### Submission Instructions

Submissions are to be made by **5:00pm (AEST) Friday 28 February 2014**.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text-based formats via the email address [mobilecoverage@communications.gov.au](mailto:mobilecoverage@communications.gov.au)

Alternatively, submissions can be sent to the postal address below (to arrive by the due date):

The Manager  
Mobile Coverage Programme  
Department of Communications  
GPO Box 2154  
CANBERRA ACT 2615

All submissions lodged will be acknowledged by the Department of Communications by email (or by letter if no email is provided). Respondents lodging a submission who do not receive acknowledgement of their submission should contact the Department. Submissions which are not acknowledged by the Department as being received may not be considered. Respondents should be aware that emails greater than 10Mb may not be successfully delivered.

# **Wimmera Development Association**

## **Australian Government Mobile Coverage Programme**

**February 2014**

### **Background**

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Wimmera Development Association is located in western Victoria, and is the peak regional development organisation, servicing the Wimmera and Southern Mallee. Member Councils are West Wimmera, Hindmarsh, Yarriambiack, Northern Grampians and Horsham.

The region has been active in advocating for improved telecommunications services for our businesses and community. The new Coalition Government “Mobile Black Spot Programme” policy offers regional communities with opportunities to improve services, including significant leverage opportunities from the roll-out of the National Broadband Network (NBN) infrastructure.

Wimmera Development Association supports active collaboration between federal and state governments, mobile telecommunications businesses and communities to take full advantage of existing and new infrastructure to maximize the access and affordability of the mobile telecommunications network. This includes the co-location of services on towers, as well as the review of backhaul and transmission infrastructure to maximise competition.

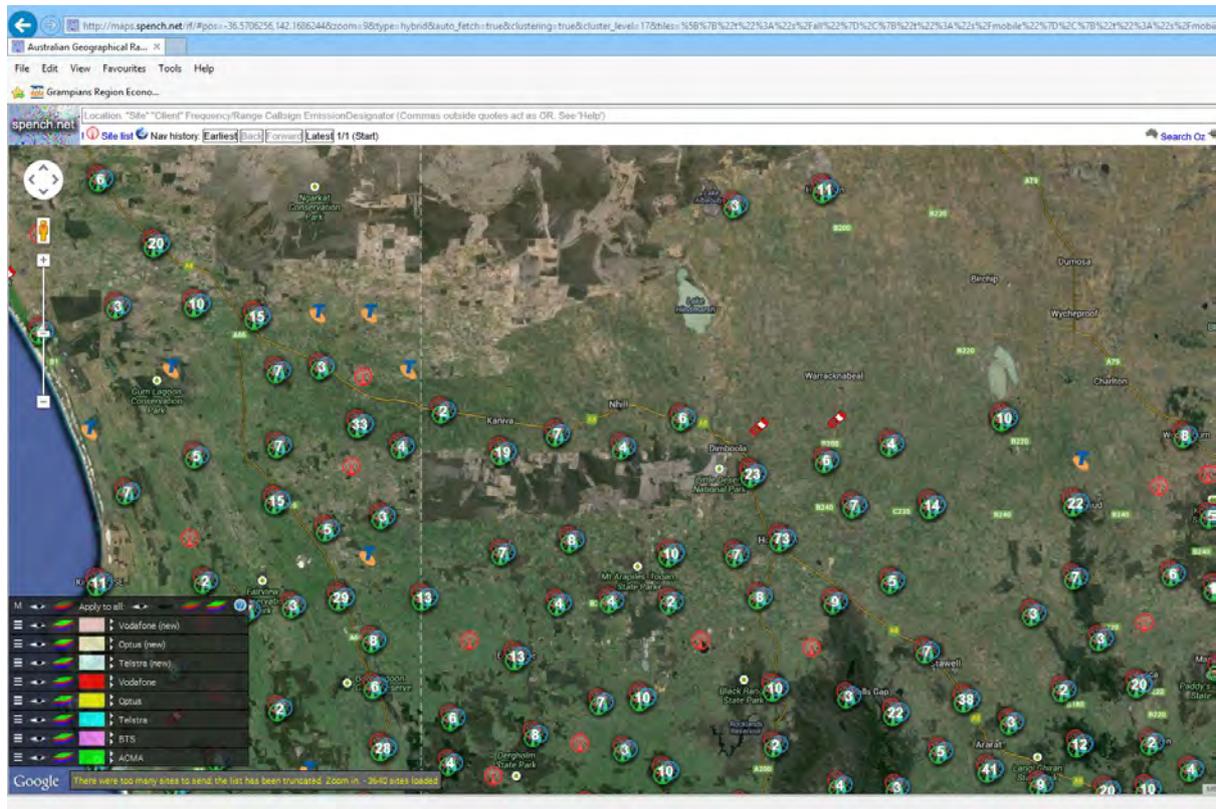
Equitable access to mobile telephone and data services is critical to the development of regional communities. Reliance on mobile telephone services to access information, maintain contact and transfer data is increasing, resulting in a growing ‘divide’ between communities that have mobile telephone/data services and those that do not.

Variability in access and signal strength is a growing issue as data use increases. The capacity of existing mobile infrastructure to service this growth is questioned, as well as the investment required to maintain the current service levels, aside from increasing services in regional areas.

Co-location of service providers and shared infrastructure is technically feasible, but commercially unattractive. This would provide a partial solution in regional areas to maximize the investment and coverage of mobile services.

The map below demonstrates the opportunity – multiple services with equivalent infrastructure in adjacent locations, due to the commercial barriers to shared infrastructure. If this investment was dispersed to provide extended coverage and access in regional Australia, with shared infrastructure, it would address some of the disadvantage

experienced by regional businesses and communities. To continue the current arrangements through the Mobile Coverage Programme is not acceptable.



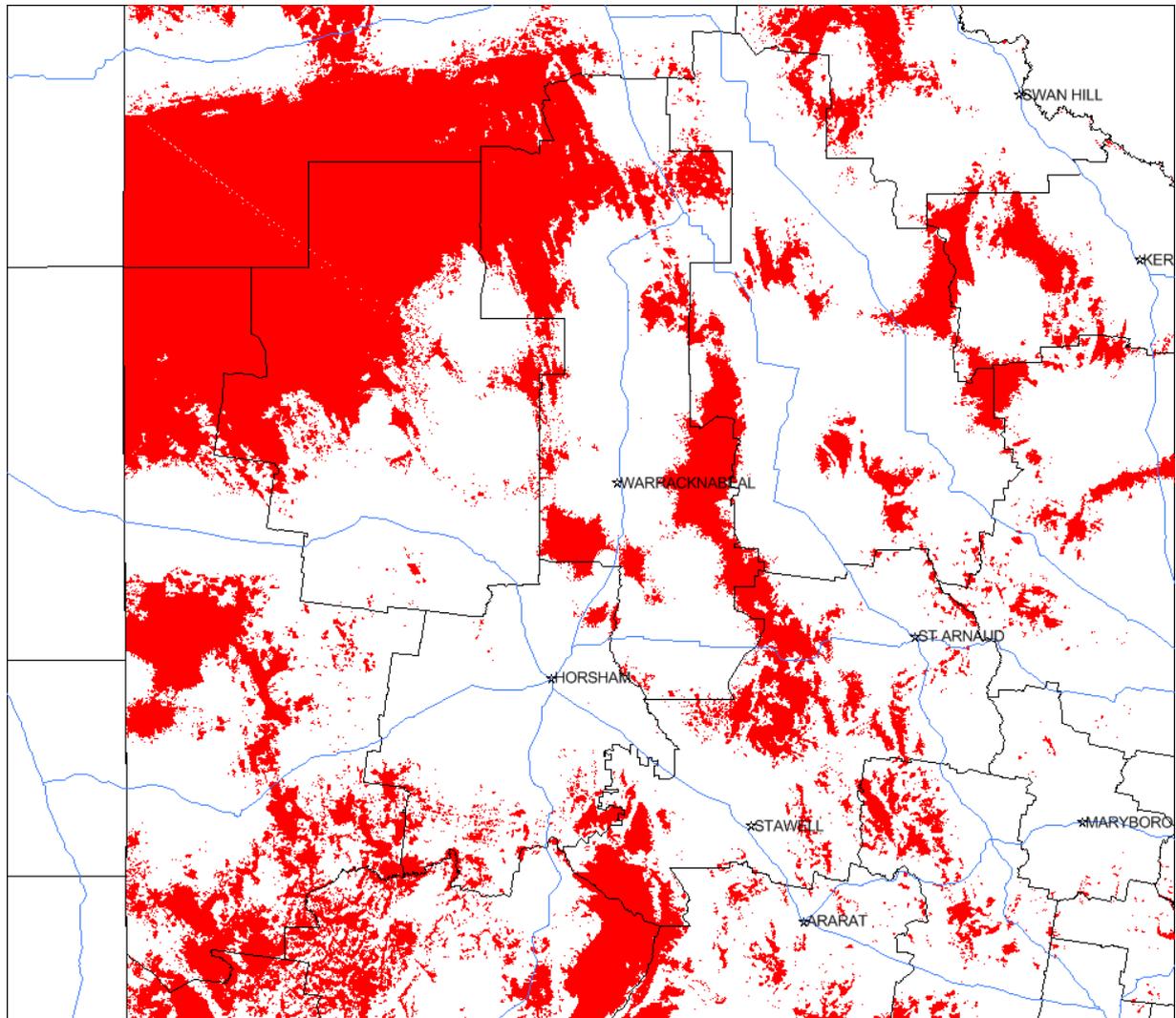
### *Telecommunications infrastructure – co-location*

The provision of services to regional and rural areas of Australia is critical to the future economic sustainability of our communities. Increasing reliance on telecommunications in agriculture, tourism, emergency management and our daily business and household transactions puts regional Australia at a competitive disadvantage due to poor access and lack of competition in the provision of the necessary telecommunications services.

The long term interests of end-users can only be enhanced through increased competition, supported by more effective access and regulation of the full suite of telecommunication infrastructure.

The regional impact of poor mobile phone coverage has again been demonstrated in the Wimmera Southern Mallee during the current fire season. Despite recommendations to royal commissions and government inquiries, our communities have again suffered significant additional risk and emergency services continue to highlight the need for improved communications. Please review the appendix of this submission to gain an appreciation of the frustration, range and complexity of responses to the lack of communications services in key areas.

The map below provides a snapshot of the mobile phone coverage for the Wimmera Southern Mallee region. It does not however indicate the growing issues related to shrinking coverage due to high data loads, or the quality of the service in relation to the needs of the regional community and its businesses.



*Black spot areas in the Wimmera Southern Mallee*

**Regional List of Communities seeking Mobile Access**

Local Government and communities have identified a number of key regional communities seeking access to mobile phone services. Drivers for access include emergency services and management, economic benefit to agriculture and tourism.

**Yarriambiack Shire** - Yaapeet/Nypo, Lubeck, Patchewollock

**West Wimmera Shire** – Dergholm, Chetwyn, Telopia Downs, Pidgeon Ponds , Wombelano, Minimay, Harrow, Charam

**Hindmarsh Shire** – Lorquon/Netherby, Yanac/Broughton

**Northern Grampians** - Halls Gap/ Mt Difficult, Marnoo, Landsborough/Navarre

**Horsham Rural City** – Laharum, Wartook, Telangatuk, Nurrabiel, Kalkee

## Responses to the Mobile Coverage Programme Discussion Paper

Please note that Wimmera Development Association does not have the expertise to provide comment on all questions posed in the discussion paper.

- 1. Would an appropriate minimum quality standard be that base stations must provide high-speed 4G LTE mobile broadband data communication services and also high quality 3G mobile voice and broadband data services? If this is not an appropriate minimum quality standard, what is?**
- 2. What are the most appropriate indicators that could be used to specify the minimum quality standards that should apply to the mobile services being provided through the programme? For instance, should it be a minimum received service signal indication (RSSI) in decibel-milliwatts (dBm)? A similar approach was adopted recently in the UK where a comparable programme specified a minimum RSSI for 3G voice and basic data service of -85dBm on roads and -75dBm in community areas (outside premises).**

From a regional development perspective minimum technical service standards, should be equivalent to the standard applied throughout the nation. For equity of access and service, regional Australian businesses and communities require the ability to compete (nationally and internationally) in the use of technology. We have experienced disadvantage to businesses through poor access and variable services, with demand and expectation growing exponentially. This programme offers a unique opportunity for regional Australia to receive a significant injection of technology – it should be built for the future and not compromised.

All contract arrangements and government policy should include capability to be upgraded as technology advances, to ensure that the technological ‘divide’ between population centres and regional Australia is not exacerbated.

- 5. Should bidders be able to propose to incorporate the use of base stations owned by NBN Co as part of their bid?**
- 6. Should a joint bid (between a specialist network infrastructure provider and a MNO) be permitted? Should it be encouraged?**
- 7. Is it realistic to expect specialist network infrastructure providers to provide backhaul (recognising that they would presumably need to contract with a third party to provide this)?**

Investment in NBN provides an outstanding opportunity to build on the outcomes of both programmes. Very rarely does the timeframes for planning and implementing major infrastructure upgrades coincide, and to have parallel development of these two information technology programmes should provide regional Australia with additional benefit. WDA supports the integration of the programmes at the tender, regulatory and policy review phases, to maximise the accessibility and coverage of the services.

- 15. Do the proposed assessment criteria achieve the right balance to deliver the best value for money outcomes?**
- 16. Should the proposed assessment criteria be weighted, and if so, how?**
- 17. Is there a more effective means of assessing seasonal demand than proposed in criterion 3(c)?**

The proposed assessment criteria should include some consideration of the economic value (contribution to the national economy) of proposed new coverage areas ie return on investment at a national scale. For example agriculture is the prime economic driver of regional Australia. Increasing use of technology in agriculture is driven by productivity and efficiency objectives. Data use in animal management, machinery, farm planning, chemical and nutrient management is growing exponentially. The benefits of improving access to mobile data services in agriculture, through increased productivity, is unrelated to populations centres and the traditional commercial imperatives for mobile telephone investment by the service providers. It should be a consideration in directing government investment, given the National Food Plan and food production targets, export and trade opportunities and the growth in technology use in the sector.

Weighting between the proposed criteria should be based on ensuring ongoing collaboration between providers to extend the benefit of the government investment in new infrastructure into regional areas.

- 18. To what extent would the use of the NBN fixed wireless network result in improved mobile coverage outcomes in regional Australia?**
- 19. How best can a greater role for NBN Co improve competition and choice for consumers in regional Australia?**
- 20. In addition to base station location, design and backhaul access, what other considerations would NBN Co need to take into account if it were to also support mobile coverage and competition benefits as part of its mandate?**
- 21. How can early engagement between NBN Co and MNOs be facilitated in the design of each base station? Is there a role here for the Australian Mobile Telecommunications Association (AMTA)?**
- 22. How can the Mobile Coverage Programme best complement any role that the NBN fixed wireless service plays in improving mobile coverage and competition?**

Whilst it is recognised that the two systems (NBN and mobile) provide separate and discrete technologies, for the consumer the application of the technology has actually merged. There is an expectation that access to broadband and data services is constant and consistent – moving from mobile to business/residence seamlessly. Business, domestic and recreation applications - the whole gamut of information technology uses has actually moved ahead of the differentiation of the infrastructure in its use by consumers.

Government policy, including pricing structures, competition regulation, historic investment models and the balance between public and private investment is restricting the opportunity for regional Australia to participate effectively in this significant technological change.

In particular, the lack of a national vision for telecommunications is impacting on improving service provision, compromising the opportunities in regional Australia. Whilst there have been a number of reviews and investigations into different aspects of telecommunications policy and infrastructure investment, these have been owned and directed by government and commercial interests. The focus has been on the immediate issues, within the existing framework of the industry.

The strategic vision has been missed, including the merging of the application of technology by consumers.

Whilst there has been some collaboration between NBN Co and MNOs in the early planning phase, this has been restricted to consideration of shared local infrastructure. It seems to have been opportunistic and piecemeal, based on the location and configuration of existing tower sites.

Investment in the fixed wireless network has the potential to provide significant boost in telecommunications infrastructure in regional areas with poor mobile service. NBN Co base station location, improvements to local exchanges and access to backhaul services could all contribute to improved mobile services, and should be included in the criteria for allocating the funds through the Mobile Coverage Programme.

## **APPENDIX – Additional Regional Information**

### **Case Study 1 - Graham Kent, Superintendent, Wimmera Division WD4, Victoria Police**

Recent bushfire activity in rural /remote locations has exposed several black spots within WD4.

A fire in and around the Lake Albacutya and Wyperfield National Park 16th - 20th January 2014 which borders the WD4 / WD6 boundaries provided black spots on the SMR network and mobile phone networks (both Telstra & Optus). Identified sites for very poor reception included;

- Tempy - Hopetoun cluster police response
- Yaapeet - Hopetoun cluster & Rainbow OMS police response
- Rainbow -. Rainbow police response.

In the case of Yaapeet Telstra eventually erected a portable mobile phone tower to provide limited coverage. Community meetings arranged by the Yarriambiack LGA provided feedback from local residents and other state agencies of the lack of digital and social communications and emergency services restrictions in reception.

On the 17th January 2014 the Grampians Fire required the evacuation of the township of Halls Gap, Dadswell Bridge, Laharum & Wartook (NW corner of Grampians). Execution of the evacuation plan at Halls Gap experienced significant difficulties with black spots in an around these locations. Police units on SMR were working in teams with SES as (SES) local communications afforded a more reliable form of communication in terms of reception and transmission. Placement of TMP's was also restricted based on radio reception.

The Grampians fire also required additional police units (ORU) for evacuation and relief of WD4 members which required SMR capability although reduced due to Grampians hotspots. I believe these communication issues presented in and around the Halls Gap - Victoria Valley fires during 2011.

Excerpt from Wimmera Division Priorities & Risk matrix:

Risk:

- Risk of compromise caused by insecure and poor communications coverage, resulting in safety, service delivery and information security concerns.

Priority:

- Develop a further submission for improved communications (SMR & mobile telephone) coverage across the Division.

### **Case Study 2 – Ruth Gosling, Farmer, Southern Mallee**

My husband and I and our two sons farm at Nypo, north of Yaapeet. At most locations on the farm there is no mobile coverage. We have long been concerned about the black spot and the negative impact it has on the efficient running of our farm, as suppliers, grain merchants and stock agents etc. cannot contact us readily. (My older son, Ben, also runs a graphic design business – it is very difficult for clients to contact him and for him to respond in a timely manner.)

The safety aspect is also of great concern. Peter and the boys are frequently working alone and if they had an accident, it would be very difficult for them to get help.

However, the seriousness of this situation was really brought home last month during the bushfires which devastated 1000 hectares of our land at Gosling Road. For me it was a very distressing time. We live in Rainbow and Peter and the boys had gone out to the farm to fight the fires started by lightning on Tuesday afternoon, 14th January. For the most part they were out of contact with me. From the early hours of Wednesday 15th and throughout the day I was hearing emergency warnings for the fire on Gosling Road, but was unable to contact my family to be sure they were safe. The fire threat did not subside until late on Friday. This was a very stressful situation for us and was made worse by the lack of mobile coverage.

Our concerns are shared by all who live and farm in and north of Yaaapeet, as well as tourists visiting Wyperfeld National Park (estimated to be 60 thousand visitors annually.) These concerns are not new, but were dramatically highlighted by the events of last month. Many of the women who were working in the Yaaapeet Community Centre to provide meals for the firefighters had sons and/or husbands on the CFA trucks and were very anxious given the lack of mobile coverage and their inability to contact their loved ones.

I have this week written to Hugh Delahunty and Andrew Broad to make them aware of this black spot and its impact on our family and community.

### **Case Study 3 – Royce and Jeanne Raleigh, Wartook Gardens, Grampians (excerpts from their story)**

For over 20 years we have trying to get authorities and politicians to do something about the lack of mobile and broadband coverage in this area. In today's age both of these services are essential to everyone and even more important for country people. We are certainly much more disadvantaged today than we were back then! We have made detailed submissions to various inquiries but to no avail.

We have heard lots of talk and even many promises which have come to nought.

THE TIME FOR TALK IS WELL AND TRULY OVER, NOW IT IS TIME FOR ACTION - AS A COMMUNITY WE NEED TO TAKE A MUCH MORE AGGRESSIVE STAND TO ENSURE THAT SOMETHING DOES GET DONE THIS TIME

The recent Wartook fires really brought home to the locals, the CFA and the Police how pathetic communications are in this area - we don't have any!

Our objective is to inform you of a first hand experience in the recent Wartook fire and to ask you to do what you can to improve communication not only in terms of mobile phone coverage but also to improve the efficiency of communication within the fire services when dealing with local residents.

First of all we have nothing but praise for the CFA Brigades and DEPI Fire fighters who all did a magnificent job in this area often under very difficult circumstances.

We did not receive any message under the Bushfire Emergency Warning System. It simply did not work in this area because we have no mobile phone coverage. We did not even get a landline message.

At 2am Friday 17th the power and phones ceased to function - that was frightening as we felt very alone with no form of communication at all. We could not contact emergency services even if we had wanted to.

While we had power my son in New Zealand was feeding us more up to date information than we could get locally. Another local was getting her updates from her daughter in Perth!

The lack of mobile phone coverage in this area meant that none of us could contact Emergency Services even if we had wanted to. We know that it was a major problem for many of the people involved in dealing with the fire and its aftermath. One senior policeman pulled up on the road and asked whether or not we had seen his staff as he had no means of contacting them. How ridiculous - it could have had tragic results.

I have had little sleep since the fire and have been going through the letters that we have written to Politicians, including Ministers and the Submissions that we have made to Telecommunications enquiries and to Telstra etc during a period of over 20 years. It is interesting that the points we raised 20 years ago are still the same ones we raise today. Others have done likewise - it has all fallen on deaf ears we have heard all sorts of promises which have amounted to nought. With the passing of that 20 years we are now far more severely disadvantaged than we were then. Today mobile phone and high speed broadband should be considered Essential Services.

**Case Study 4 – Importance of data use in agriculture – Executive summary of “Wimmera Southern Mallee Remote Data Use In Agriculture” 2013 (full report available at <http://www.wda.org.au/images/Remote%20Data%20Use%20in%20Agriculture%20-%20Final%20Report.pdf>)**

“Agriculture is fast becoming one of the most technologically advanced industries in Australia, with some of the lowest levels of phone and data reception. Farmers need up to the minute reliable information, to make informed decisions, and to get the most from efficiency improving technology. The National Broadband Network (NBN) stands to unlock a huge potential for technology development in this industry” (anonymous survey participant).

The Wimmera Development Association (WDA) identifies agriculture as the largest industry sector in the region in terms of employment, expenditure, gross revenue and regional exports. Given its significance in the local economy, agriculture in the Wimmera Southern Mallee needs to stay attuned to the exciting opportunities existing and emerging in the digital economy.

This project undertook extensive regional survey work to benchmark the current use of information and communications technology (ICT) in the agricultural sector of the Wimmera Southern Mallee region.

Approximately 50 % of survey respondents in this project rated the potential benefit of all ICT applications surveyed as above average, even where they did not use the technology. This indicates that many respondents are aware of current and emerging ICT in agriculture.

Primary producer ownership of smartphones in the region is above the national average. However, there is a large variation as to how and where they are used. There is reasonably high uptake of advanced internet use and cloud computing applications in some business sectors. The uptake of more recently emerged technologies such as high definition (HD) cameras, remote machinery control and aerial observation, is less advanced.

The two most common barriers to adopting ICT were poor mobile phone reception and low internet speed. Both are critical to harnessing the full ICT benefits that the digital world continues to offer. This is particularly so with respect to services from a mobile device.

A large percentage of survey respondents in each business sector are unaware, or find it difficult to quantify, what the benefits will be of introducing a high speed broadband service, i.e. the National Broadband Network (NBN), to their community. This reinforces that regular awareness and training will be important to continue to engage the agricultural sector and ensure ICT efficiencies are adopted. Improving connectivity will assist in enhancing business profitability and sustaining communities disadvantaged by remoteness. "Quality mobile service is restricting my profitability by around 4 % to 5 %" (Anonymous survey respondent, Nov 2012).

There are a number of key strategic initiatives that WDA can employ to ensure that agriculture in the Wimmera Southern Mallee region stands ready to embrace ICT in the digital economy. These initiatives are focused around awareness, engagement, training and adoption.

### **Case Study 5 - Blackspots at Mobile Library Sites**

The Wimmera Regional Library's Mobile Library visits 17 sites across 5 councils in North West Victoria. Four sites in Yarriambiack, Horsham Rural City Council, and Northern Grampians shire have blackspots.

The service relies on being able to connect to the mobile phone network to operate the library computer system for Library transactions. The mobile also has a public access computer on board for patrons. We use both Telstra and Optus networks in an attempt to gain coverage across the catchment.

Four of the 17 sites are identified as black spots for connectivity.

- LAHARUM – 3/10 rating
- MARNOO – 1/10 rating
- YAAPEET – 2/10 rating
- PATCHEWOLLOCK – 1/10

Without an internet connection we cannot open our Workflow program, resulting in an inability to use patron details, no check-outs or check-ins, can't make reservations for patrons, can't access the catalogue or do internet searches. This makes our service look second rate and diminishes the service that we can provide to these communities.