Submission 193
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Regional Development Australia
BAROSSA

Submission on Broadband in the Region

Submitted By	Organisation	State
Anne Moroney CEO	RDA Barossa	South Australia

1. Regional Profile and Need

The Barossa region, encompassing the council areas of the Town of Gawler, District Council of Mallala, The Barossa Council and Light Regional Council, is a highly productive regional area, bordering the outer metropolitan area of Adelaide, South Australia. The region covers a diverse and interconnected area from the Gawler River and Coast through the rural northern Adelaide plains to the vineyards of the Barossa Valley. It covers 3144km2 with a population of 62,000 people (2006). The population is largely in settlements ranging in size from less than 200 persons up to 4000. The largest settlement in the area is Gawler with a population of 20,000 persons.

The region is a major food producer involved in broad acre cropping, horticulture, viticulture and intensive animal husbandry. Much of the processing and value adding of wine grapes is established within or close to the region. The Barossa Valley has a tourism industry of international repute. There is considerable opportunity for further value adding to agricultural production and scientific, research and educational industries associated with agriculture and food & wine production. Food and wine tourism, culinary tourism, is a growing industry. The presence of Roseworthy College campus of Adelaide University, home to the state's first veterinary science school, adds to this potential. Turretfield Research Station undertakes pharmaceuticals research. Strategically located vis a vis freight routes, the region also presents as a logistics hub.

The Barossa region therefore has the potential to be recognised as a premier location in which to live work and do business. It is earmarked for significant population growth in the 30 Year Plan for Greater Adelaide, with land releases facilitating more than doubling current population over the next 20 years. Present challenges include the potential for unbalanced growth in population and economy, an educated workforce with no high level jobs for young people, lack of diversity, lack of infrastructure and services driving isolated population pockets with attendant social ills. The region is at a cross roads with preferred future scenarios heavily dependent on the provision of infrastructure and connectivity.

The management of sensitive ecosystems and water resources are key environmental issues facing the region; both the riverine areas of the Light and Gawler River systems and the coastal areas with their sensitive samphire hinterland and estuarine mangroves are of significant value and must be managed and accommodated within planning and development frameworks. It is critical to attract light footprint industry which at once support the amenity of the region, drive productivity and do not threaten the delicate ecosystems.

At present, the Barossa Region has a relatively young population profile, with above average proportions of school-aged and younger children and people aged between 45 and 64 years.

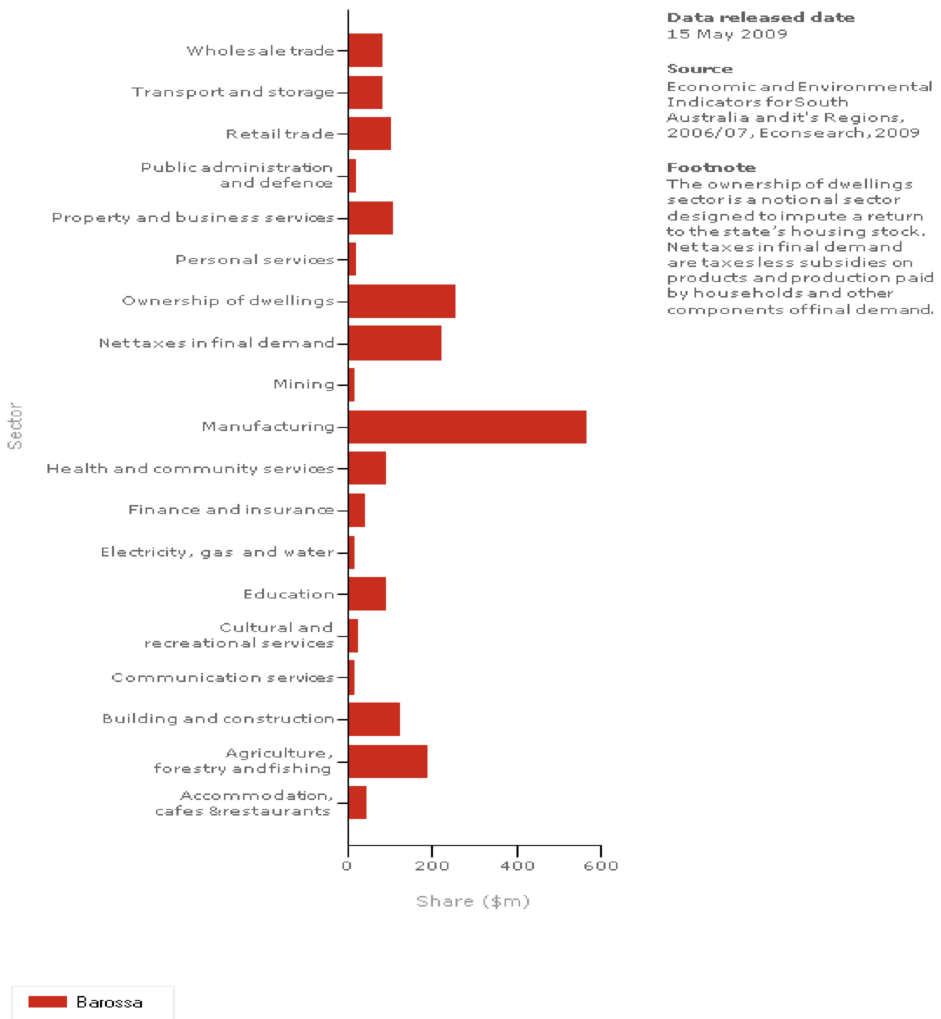
The region has high proportions of families with children. There have been above average population increases over recent years, and the population is projected to continue to grow at a rate higher than the State average. However, we cannot retain these young people in the region unless our businesses have access to broadband enabled technology for innovation and growth and the creation of employment for the young, the clever and the creative.

Key labour force indicators for the Barossa Region show above average labour force participation rates, and low levels of unemployment. Residents of the region are represented highly in trades, production and labouring occupations. Improved connectivity is needed to drive productivity improvements and facilitate industries that can create the industry diversity required for economic sustainability without undermining the economic base of food & wine production, food & wine tourism and education. As in all rural areas, the post school qualifications are below average. Improved connectivity will allow young people to pursue online learning opportunities whist remaining in the region. E-health technologies extend existing health services to meet growing need.

The Barossa Region will undergo significant growth of its population within existing towns and new growth areas which will require timely definition of location and urban form and comprehensive planning for new infrastructure. The new population will require employment the region if vibrant communities are to be retained.

Growth will require industrial land within accessible locations and on major arterial routes and the reinforcement of commercial areas within existing towns and areas of major growth and these developments will also require complementary connectivity.

GROSS REGIONAL PRODUCT, 2006/07



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2. Communications Infrastructure

Communications coverage includes traditional land line telephones and mobile phone coverage which is generally available to some degree. There are a few mobile phone black spots remaining across the region, mostly as a result of geographical interference with signals, which have been identified on figure 2. In some cases, around the townships of Templers and Wasleys, in parts of the Eden valley and outlying rural properties principally, this results in no access to broadband internet through any means other than satellite. Along one of the main routes from Sturt Highway to the centre of the Barossa valley, Gomersal Road, there are also black spots for most 3G coverage without a vehicle antenna. Despite these issues, Telstra Next G provides to some extent coverage, though the pricing in areas without a competitor carrier is considered a barrier to access.

Many of the population centres within the region, with the exception of those in the Mallala council area, have some broadband coverage. Gawler is well served with Terrestrial Broadband, although at the fringes there are indications of technology bottlenecks limiting connectivity to some areas. Gawler is growing rapidly and this connectivity will be stretched. Throughout the Barossa Valley and in some townships in Light a limited broadband (wired and wireless) rollout by Amcom in 2006 encouraged Telstra to enable ADSL and even ADSL 2+ in a number of exchanges across the region. Broadband availability in slim across the Mallala council region with many areas forced to accept slower and significantly more expensive wireless services or Satellite. The hills of Eden Valley have minimal coverage. This is a significant problem for export oriented wine businesses. Bandwidth is however a problem across the region for industry and services, including education.

ADSL Enabled Exchanges

Currently enabled exchanges across the region include: (source http://www.adsl2exchanges.com.au/providerexchanges.php?Location=SA)

ADSL1 enabled Exchanges:

- Angaston
- Greenock

ADSL2+ enabled Exchanges:

- Tanunda
- Nuriootpa
- Kapunda (Amcom only, Telstra: “proposed” but has been for years)
- Lyndoch
- Freeling
- Eudunda
- Roseworthy
- Rosedale
- Two Wells
- Lewiston
- Truro
- Gawler
- Williamstown

No ADSL:

- Tarlee
- Moculta
- Keyneton
- Flaxman Valley
- Eden Valley
- Hamley Bridge

ADSL Expected Speeds

Figure 1 sets out ADSL speeds by proximity from the exchange. This graph shows by ADSL, ADSL2+ etc what sort of speed one can get by proximity to the exchange.

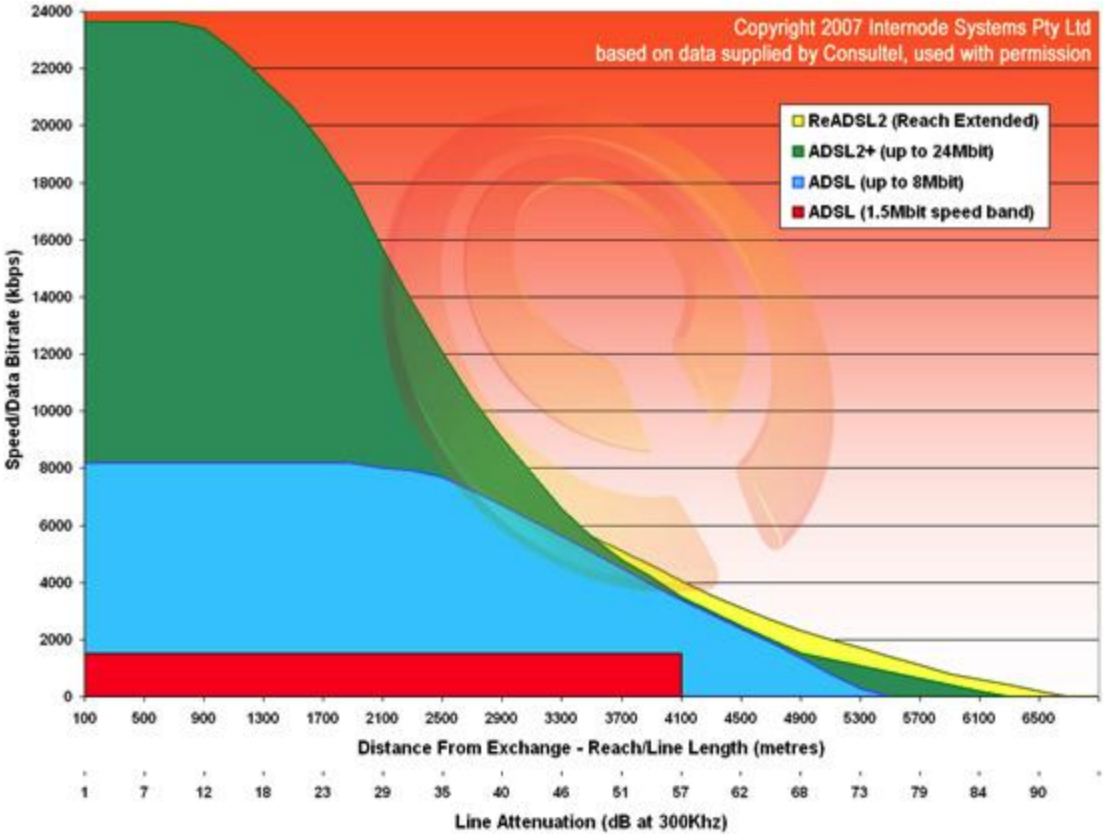


Figure 1 Source:http://www.internode.on.net/residential/adsl_broadband/easy_broadband/performance/)

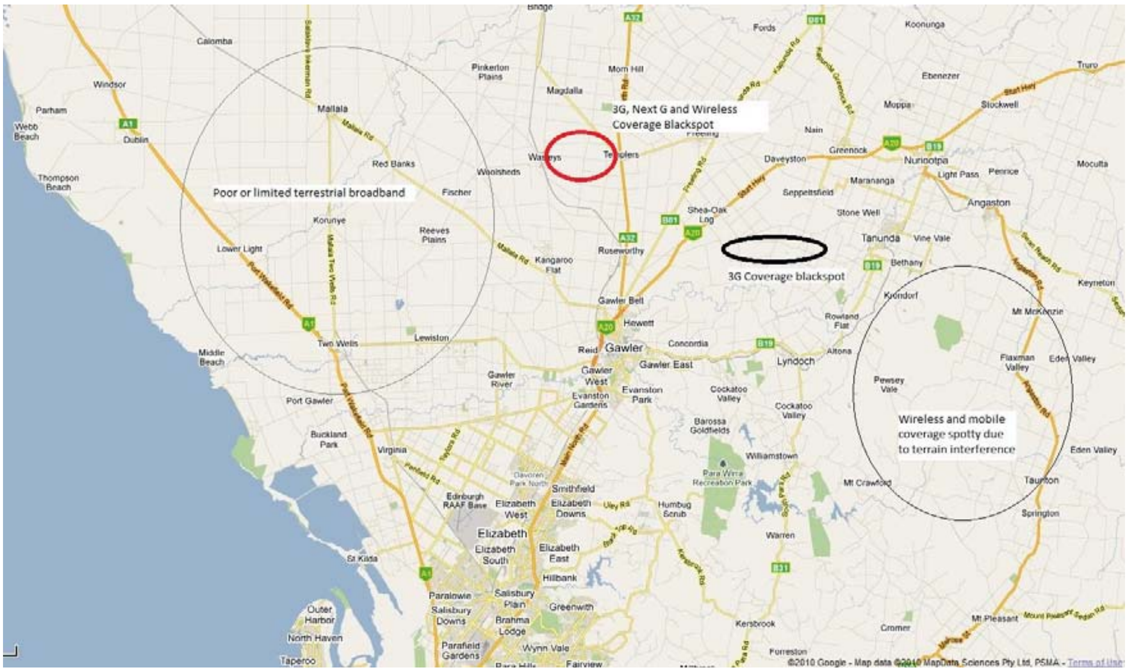


Figure 2: Coverage issues in greater Barossa region

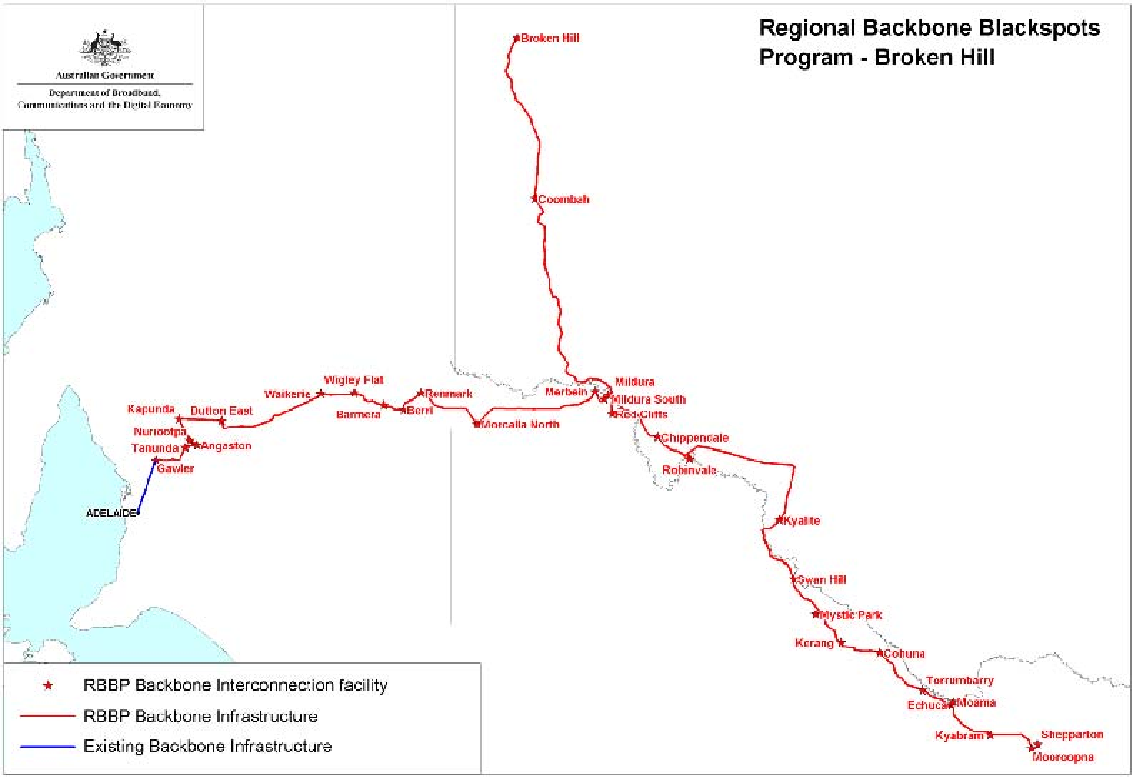
The current roll out of the Backhaul Fibre from Gawler to Mildura as part of the Blackspots programme to connect Broken Hill, will provide a significant infrastructure platform for this region, but will not of itself, without further investment, fill these gaps in high speed connectivity.

Whilst the heavily export oriented industry understands the opportunity presented by high speed broadband and is willing to engage in faster speed services, the absence of bandwidth is the biggest rate limiter to growth. Industries such as wine, heavily dependent on digital marketing and digital communication, online export procedures and compliance regimes, there is little they can do to augment their connectivity without that next stage of installations. Wine remains South Australia’s second biggest export and an important industry on a national basis. In a highly competitive business environment, the lack of bandwidth is undermining Australia’s market position.

Educational Institutions in the wider region, particularly TAFE delivering much needed trade and allied health skills, is geared for on line delivery of education and training. Poor bandwidth is severely limiting access to these services.

In summary, whilst the Barossa region boasts significant export and advanced services industries, their expansion growth and productivity is limited by existing infrastructure constraints on access to the internet. There remains a very major issue of broadband connection for businesses and residents within Mallala council and improved synchronous, high speed access across the broader region for business. Without this there will be economic constraints to growth and limitations on the ability to attract workers and businesses from knowledge based industries.

3. The Present Opportunity



With the 'Blackspot Backhaul Program' providing the platform set to improve ADSL2+ competition and improve overall internet bandwidth to our region, there is an opportunity to provide "last mile" connectivity across the region very efficiently. With the Optical Fibre Cable of considerable capacity already in place, a much greater connectivity dividend can be delivered per NBN dollar invested.

As noted above, the Barossa Valley has a somewhat unusual geography (and demography) for rural Australia. A collection of villages, forming one community, with the majority of export oriented businesses outside the village boundaries, there is an imperative to consider the valley as one community for the purposes of determining connectivity infrastructure and guaranteed minimum speeds. In that sense the region operates a little like Canberra (on a smaller scale), a collection of connected hubs operating as one commercial centre, one community, one destination. On this basis, the boundaries for determining population size should embrace the Geographic Indication Zone rather than individual village Boundaries.

Gawler and the emerging township of Roseworthy will both be serviced by an optical Fibre backbone, for Gawler the cable to Mildura and for Roseworthy, the sabrenet fibre to Roseworthy campus of Adelaide University. Roseworthy will be essentially greenfields development and to attract the advanced industries required to build a sustainable economic base aligned with its assets of highest value, a comprehensive network of fibre and wireless will be required.

The plains of Light and Mallala are home to export oriented food production, both livestock and horticulture, and are currently underserviced by any reasonable speeds or capacity. An underpinning fibre installation complemented by new wireless installations can deliver the mobility in telecommunications required for these industries. At Mallala and at Roseworthy (Kingsford) there is also significant potential for manufacturing to service the mining and other industries, with commensurate demand for bandwidth to facilitate state of the art digital imaging driving innovation in these industries.

In a recent publication by the CSIRO, 'Our Future World: An Analysis of global trends, shocks and scenarios' [1], they identified five 'megatrends' in consumer and market demand of which two key trends stand out from the point of view of the digital economy; 2. 'A Personal Touch' and 5. 'i World'. These highlight the trend of people demanding more personalised, less generic products and the increased connectivity of the physical and digital worlds. Combined, these trends offer regions, such as ours, that with a broad variety of niche products and a large set of credence attributed with opportunities to readily access the global marketplace through broadband internet.

Knowledge and technology intensive industries, which are not sensitive to labour price, are increasingly able to conduct cost effective and competitive business in the regions [2]rather than offshore; using the Internet as a means of transmitting data and modern global 4th party logistics providers to make shipping across the globe as simple as across the country.

The Barossa Region is Digital Ready with an integrated strategy to maximise the opportunity presenting:

a) RDA Barossa is facilitating a cluster of local government councils to develop a comprehensive strategy for their readiness, from planning, technical expertise and services perspectives to be ready for installation of fibre and a broadband enabled operating environment.

b) RDA Barossa, in partnership with industry, health and education has embraced a digital strategy based on the how, the when, the what of Broadband readiness with outcome oriented projects underway. The only gap to achieving these outcomes and improved productivity is affordable bandwidth. The opportunity is there, now, to take advantage of the industry driven initiative to deliver real outcomes from enhanced broadband installations and connectivity in the Barossa region.

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[1] http://www.csiro.au/resources/Our-Future-World.html

[2] ABC Country Hour Story, 12/11/2010 – http://www.abc.net.au/rural/telegraph/content/2010/s3064712.htm?site=sydney&section=news

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Appendix

Sector opportunities identified by industry

Health:	e-records, virtual consultations, allied health consultations, research, diagnostic tools, specialist assistance, doctor services, doctor training. Trend to transfer people out of hospitals for home care, online carer support, hand held unity for field worker contact & support, webinars around carer issues, success stories & carer support, Spoke Network
Education:	Online enrolments information (live April 2011 for TAFE); online courses, Online assessments; video conferencing, clever networks video conferencing; connectivity with other students and support services, career counselling, mentoring and support, greater accessibility for high school VET students *(TAFE already advanced in online uptake eg "Your Tutor" at Gawler),* multimode delivery, changes to Austudy allowances – increases need for students to access study from home or remotely; curriculum extension for schools and TAFE.
Community:	Connectivity, support services, broadband for seniors, access to information, access to education and learning, volunteer resources *(CABRI centre in Two Wells)*, hot spots v kiosks: optimise community assets; smart grid energy market; community TV,
Industry Generally:	HR access and support online; OH & S solutions: teleworking when mildly ill, keep viruses from spreading, virtual businesses, work/life balance benefits – not up all night dealing with other time zones, business mentoring on e-commerce,
Retail:	3 – 4 % online retail in Australia; compare with 7% in USA; growing, product display, virtual tours of shops & products, production facilities, eg food production videos,
Tourism:	Hot spots really important, expected by the discerning traveller, access to adequate speeds preventing businesses going online, especially rural retreats, need bandwidth for online booking, virtual tours, Iphone aps, operators need not to charge for internet access, digital gateway to 2000 beds,
Real estate:	Virtual tours, property values at risk if no high speed broadband

Wine industry:	Virtual tours of vineyards (marketing and grape sales) Wine making videos, bandwidth limitations limits online sales, difficult to manage direct sales professionally, Aust Post e-tag system not usable without b/w, logistics , regulatory framework for export online, skype with exporters
Local Government:	Portal for elected members, "Snap send solve" community reporting, Statewide (at least region wide) GIS, online services (eg libraries) interactive service provision & payments, ratepayer page, online tracking of applications & approvals, Challenge to be ready for physical rollout of fibre, complex project management & logistics, need to be "NBN ready", taskforce opportunity; "shared" resources across councils.
Agriculture:	Online monitoring, irrigation systems, real time weather, chemical and problem solving support, "Smart" agriculture; better real time access to markets, including online markets, cluster development, value chain enhancement
Workforce:	Labour exchanges, HR Services online; careers coaching; telecommuting; overseas exchanges; skills online; casual telecommuting to contain viruses