Regional Development Australia
FAR WEST NSW

27 July 2011

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Attention: Ms Stephanie Mikac, Inquiry Secretary

Dear Ms Mikac

Please find attached a submission to the Joint Committee from the RDA Far West NSW.

The Far West Region of NSW is extremely excited about the opportunities that will be possible once the NBN is delivered to our region. We are very keen to be on the next list of Release Sites, as we will be ready to connect from September 2011. We urge the Joint Committee to consider the tremendous disadvantages faced by residents in our region and also to consider how we plan to improve our regional economy through sector diversification, acknowledging we have generational change to manage.

The broadband rollout in Broken Hill will bestow advantages to the city and the ramped up non-fixed, mobile services will help improve the reliability and speed to the surrounding region. The NBN Co will gain experience in dealing with the discreet challenges involved in delivery broadband services in a truly regional yet compact geographic location. The existing broadband services in Broken Hill do not meet customer expectations in terms of price or product quality. Test results show deficiencies in speed and consistency of quality.

The clear message from our region is “We must have the NBN, we need it now, and can you please advise when we can receive delivery”.

Regards

Linda Nadge

Submission to the Joint Committee on the NBN

The overview of this submission is as follows:

Introduction

Overview of Far West NSW

Strategy for economic diversification

Challenges presented by existing voice and data infrastructure

Other challenges in the region – unemployment, social inclusion

Specific concerns we have connected with the NBN rollout

Appendix 1 – Economic Update for Far West NSW, August 2010

Appendix 2 – Speed Test Results

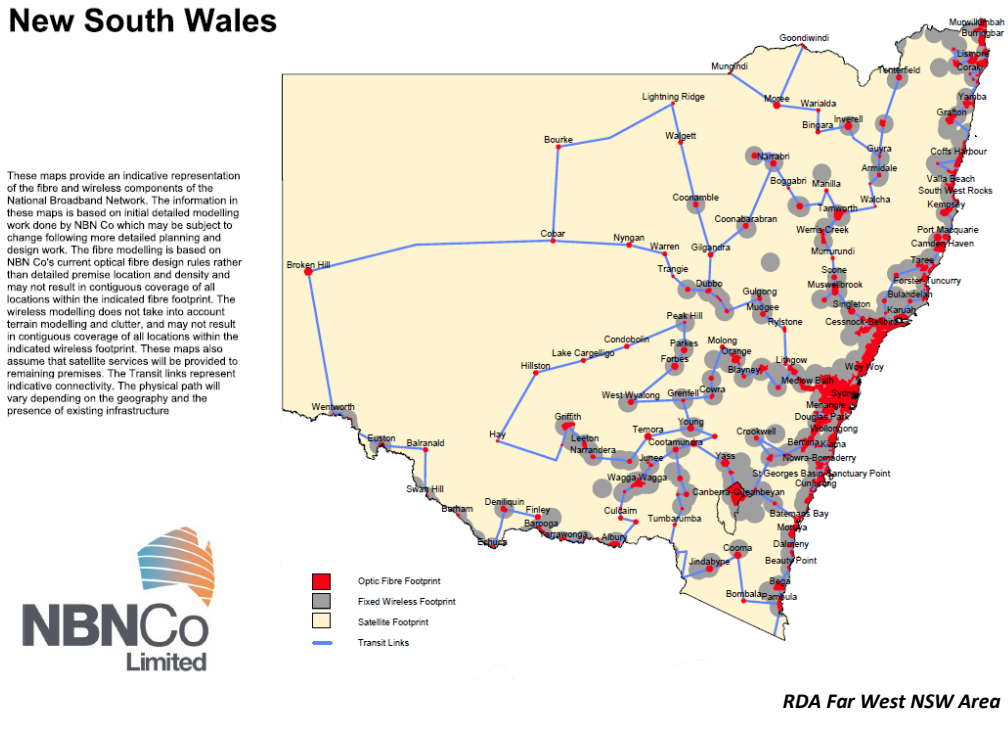
Appendix 3 – Social Characteristics in Far West NSW

Appendix 4 - Community Development Case Study – Broken Hill Golf and Country Club

Introduction

It is our understanding that the NBN will deliver to Broken Hill City a FTTP solution and that the remaining parts of the Far West NSW region will receive satellite, as indicated by Figure 1. The smaller map to the right shows the geographic boundary of the RDA Far West NSW region which occupies the top left-hand corner of the State. A satellite service may offer some optimism since many people in the region have not had good wireless experiences. At present, a mix of Next G and copper networks provide mobile phone and fixed broadband services in our region – patchy to irrelevant services in many areas. The key issue for us is when will the NBN improvements be delivered?

Figure 1 – The Proposed NBN footprint in NSW



Through this submission, we hope to positively influence the decision-makers who can hasten the speed of the NBN rollout in our region. We need the improved services immediately.

We hope to demonstrate to the Joint Committee that the existing services are inadequate and holding us back from reaching greater economic potential, as, in some locations in far west NSW, the communications services are beneath standards experienced in a third world country in the mid-1990s.

Overview of Far West NSW

The Far West of NSW is the most sparsely populated region in NSW, accounting for 18.4% of the land mass, but only 0.4% of the population. Almost nine in every 10 people (86%) live in Broken Hill, with the remainder living mostly in the Central Darling Shire towns of Wilcannia, Menindee, White Cliffs, Tilpa, and Ivanhoe, or Tibooburra in the surrounding Unincorporated Area.

Dramatic population declines over the past 50 years have been directly linked to a significantly restructured mining industry. We would like to think this decline has stabilised and that there is potential for growth – there is sufficient infrastructure and housing to attract several thousand more residents.

Among the major population centres, Broken Hill and Menindee have an older demographic than NSW, while Wilcannia's younger demographic is linked to a high Indigenous population with associated shortened life expectancies.

Individual and family incomes are well below the national average – with Wilcannia's almost half the national average – and stated unemployment is about double the national average in Wilcannia and Broken Hill, three times the national average in Menindee.

Mostly, the region is well served by transport infrastructure and water. Broken Hill has a range of primary health care services and an 88-bed hospital supported by visiting surgeons and specialists, while Central Darling Shire relies on a combination of limited on-site resources supported by the Royal Flying Doctor Service and outreach services from Broken Hill and Dubbo. Broken Hill has two secondary schools and seven primary schools, while 'combined' schools in each of the outlying centres access government programs to address specific issues.

There is opportunity for the expansion and growth in tertiary education services in the region. However, whilst this region is experienced in training people, all too often the training is not followed up with real paid work.

The climate, environment and existing arts developments are conducive to the region's developing tourism and creative industries. Extensive conservation occurs through a series of national parks and the region is conducive to renewable energy projects.

Known mineral resources retain mining as a key employer and the region is also considered highly prospective, with a number of smaller projects in various stages of development. However, the traditional mining/pastoral dependence is moving through a diversification process. Alongside tourism, creative industries are targeted activities for jobs in the future. Education is a significant employer in each of the three main population centres alongside healthcare and social assistance, while retail is the largest employment sector in Broken Hill. Support services to the key economic sectors perform vital functions that must be sustained.

There are a number of projects in various stages of development, including non-mining infrastructure such as a wind farm at Silverton, a film studio and heritage conservation in Broken Hill, the proposal to list the Menindee Lakes as a Ramsar site. These and other projects are all tailored to suit our region's economic diversification plans.

All elements of our region's visions have a strategic fit.

Economic Diversification

An analysis of our region during 2010 revealed the drivers of change that supported a shift in economic strategies. Some of the key drivers that prompted regional leaders to act:

- Ongoing exposure to commodity prices (wool, zinc, lead);
- Rising unemployment in the region;
- Ageing community in Broken Hill;
- Increasingly young demographic profile of Wilcannia and the very high unemployment rate amongst the Indigenous population in our region;
- Very slow take-up of the Internet in towns like Wilcannia, Menindee;
- Dramatic population decline post-GFC;
- A decade of drought (2001-2010).

An assessment of the region's potential revealed it was necessary to support the existing mining and agricultural sectors but at the same time, embark upon generational change to help create a sustainable and liveable region. Economic analysis of our region also highlights that mining opportunities must be exploited in the near to medium term to stimulate jobs and investment (see Appendix 1).

The change process we have embarked upon in our region will not be easy. We do find it difficult to keep our communities focused on a positive future, amid the challenges listed above. However, the region is committed more than ever to making the changes successful.

> ***Vision for Far West NSW***
>
> Far West NSW will be economically diverse and prosperous, socially inclusive, environmentally sustainable, innovative and creative.

Our Regional Plan for the next 10 years displays the understanding of our community. It highlights how we intend to achieve that vision.

- We have accepted we need to tackle big changes in the region.
- There is a need for a significant shift in social attitudes, comfort zones, and learning.
- We admit that many people in our region do not fully understand the technology we are talking about today, but they place trust in their community leaders to do the best for their region.
- We realise we must develop new skills to fully exploit the NBN.
- We recognise that NBN is enabling technology, ubiquitous and essential for survival in the coming decades.
- We know that our region needs to be on the next possible NBN Release Site list because our survival depends upon it.
- We know we may not currently have an optimum commercial case to support a large infrastructure investment like the NBN, but we have amongst the most significant social responsibilities and some of the most promising economic growth potential in the country.

The key to achieving our economic diversification ambitions is to gradually transition gross regional product from its very high current dependency on mining and agriculture, and smooth future revenue opportunities across two new economic sectors that present the best strategic fit with our region at the current time -- ecotourism and creative industries.

Clearly, without the benefits of the NBN we will need to go back to the planning phase as the majority of our future economic growth is centred on the ability to access high speed, high capacity Internet services.

Ecotourism	Creative Industries
The foundation project for ecotourism development and diversification is the Ramsar nomination of the Menindee Lakes within Central Darling Shire	The foundation project for creative industries development and diversification is the world class film studio and tourism precinct in Broken Hill City

By diversifying our region's revenue sources, we hope to achieve new jobs and investment through:

- Creation of new business and investment opportunities - this also leads to increased engagement and retention of our youth, and the population in general;
- Increased demand for new goods and services - eg enhanced education, learning, social interaction and work experiences in new, complementary economic sectors that can exploit competitively priced technology;
- Improvements to the ways we can link our region with others in the nation in order to capitalise on economic potential that may be developing elsewhere eg virtual reality training facilities that link UNSW, Dubbo and Broken Hill to exploit mining opportunities or packaging of ecotourism sites to target increased visits by international visitors.

In the words of a local business operator, Hugh Gough, who regularly consults among the local leadership to help promote tourism in the region:

I am in the process of developing a web site and the mantra of the site is "To Showcase Broken Hill to the World". As at least 85% of visitors that I come across state that they had no idea of how much there is to see and do in our unique city, it is evident that current destination marketing has a long way to go.

In the investigative process to discover what is it that makes Broken Hill unique I have come across a very significant collective sense that "You owe Us". The "you" in this case is everyone from "away" but particularly focused on Canberra, Sydney and to a lesser extent, Melbourne. This debt is strongly emphasised by the "Miner's Memorial" and I do hope that the committee has the opportunity to visit this emotive place to absorb the information relating to the number of men who gave their lives to extract the wealth that funded the industrialisation of our country.

A word that occurs frequently is 'isolation'. A robust and almost stubborn capacity to get by with what we have got, has helped Broken Hill to survive despite the difficulties. The implementation of the NBN can, to a limited extent at least, help make reparation. Implementation needs to be enhanced with education and training to maximise the benefits to our city and surrounding area.

I urge the committee to give us the NBN as soon as is possible.

Challenges

Key points of concern about the current state of fixed and wireless broadband delivery in Broken Hill and in the Far West NSW region.

COST OF SERVICE

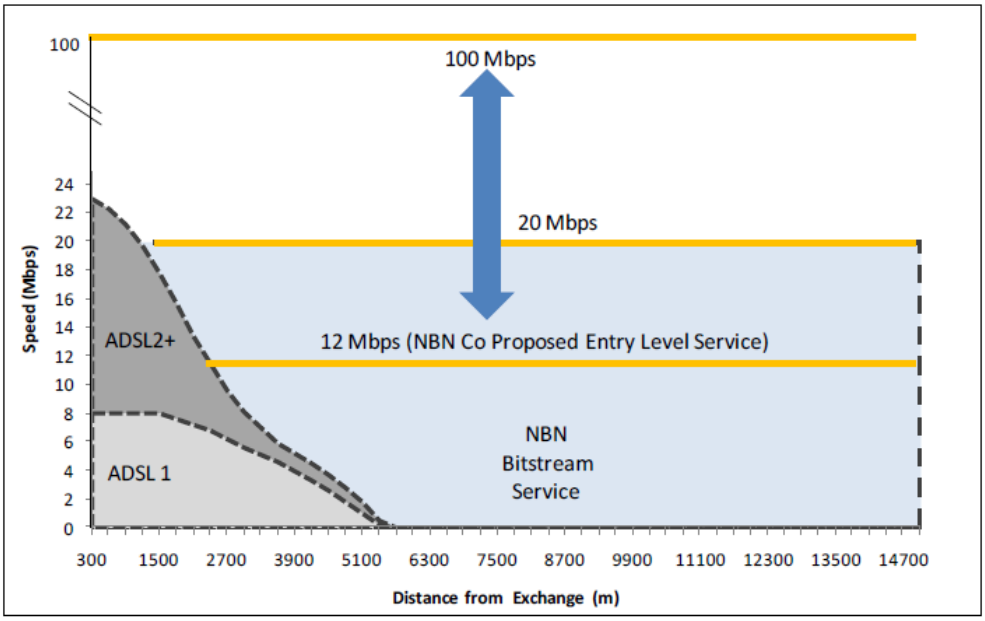
- Broadband speed tests in Broken Hill at my home, my office, confirm we pay for Internet plans that consistently fail to deliver to the plan's service level expectations.
- Increased experiences of slow service during peak times exasperate the customer who is paying for something that cannot deliver. Disclaimers on the retailers' websites are not the solution!

QUALITY OF SERVICE

- The distance from the Broken Hill Telstra Exchange is a serious limiting factor in the city which heavily impacts on quality of broadband services to premises on the city boundary. Figure 2 borrows Exhibit 2.14 from page 40 of the NBN Co Corporate Plan 2011 – 2013, dated 15 December 2010. It shows the relationship between speed and distance. The issue in our region is the non-delivery of anywhere near some of these expected speeds at any time (note the Y axis upper level for ADSL2+ at more than 22 Mbps). Attached in Appendix 2 is some data of internet speed tests in our region that highlights ADSL plan performance. There are also speed test results for mobile broadband in other parts of the region.

Figure 2 – Speed Based on Distance from Exchange

Exhibit 2.14: ADSL: Speed and Distance



Source: NBN Co, 24Seven Consulting

- The quality of service of Internet provision, perhaps due to aged copper infrastructure in Broken Hill, or damage caused by water in the system, must contribute to a lack of customer satisfaction with service delivery in the city. Customer complaints data can be seen on the Telecommunications

Industry Ombudsman web site with complaints broken down by type (eg mobile, landline, Internet, other). It may be more appropriate for the TIO to further breakdown complaints to give a better sense of geographic location and also review complaint category types to better reflect technology uses – eg "mobile" could be voice, video, data, and "Internet" could include mobile, fixed or satellite. It would not be surprising if, for example, based upon per capita analysis, the majority of customer complaints on service quality emanated from regions like Far West NSW. This is the kind of data that could support our request to address disadvantages in the region and hasten the NBN rollout, but the data is held closely by the companies and the TIO simply don't publish data in regionally-meaningful categories.
http://www.tio.com.au/publications/annual_reports/ar2010/pdfs/TIO_2010AR_ComplaintsLandscape.pdf [accessed 25 July 2011]

ABSENT INFRASTRUCUTRE

- Telecommunications infrastructure installations were not completed in our regional towns, eg Wilcannia, Menindee, where many houses (especially Indigenous housing) have no fixed lines connected to the premises, and where mobile phone services are seriously deficient.
- Many people reference the Telstra response to these concerns: "You won't be receiving a fixed line if alternative services are available". For towns like Wilcannia and Menindee it means the Telstra Next G wireless network must be relied upon. We know from experience that these phone towers fail to deliver reasonable phone signal strengths. We suggest the urgency of upgraded broadband, like that being delivered through the NBN, is obvious (see Box 1 below).
- Many houses and premises at present in Broken Hill are not connected with 'copper wire' to obtain fixed phone lines, broadband. No fixed broadband packages from retailers fully deliver to the package specifications due to limited infrastructure, other users. Many locations in our region still depend on dialup Internet connections as there is no alternative.
- Only large businesses and Government departments have the financial capacity to spend the necessary money on telecommunications projects to ensure they receive services. Our region is disadvantaged and requires Government to step up and make good services that are inferior to other parts of the nation, the world (see Box 2 for more background on disadvantages in this region).

Box 1

An extract from the Department of Sustainability Environment Water Population and Communities publication "Sustainable Australia, Sustainable Communities: An Overview" (published in 2011) shows that the Australian Government supports the development of communities which embrace these features:

"The Government recognises that liveable communities are those which effectively provide for and support high quality of life, wellbeing and health. Liveable communities have a sense of shared identity, history and connection. They provide ready access to employment and services, ease of connection with friends and family, and high environmental amenity."

Box 2

The vision for the region is that the Far West of NSW will be economically diverse and prosperous, socially inclusive, environmentally sustainable, innovative and creative.

We want sustainable, liveable communities in our region.

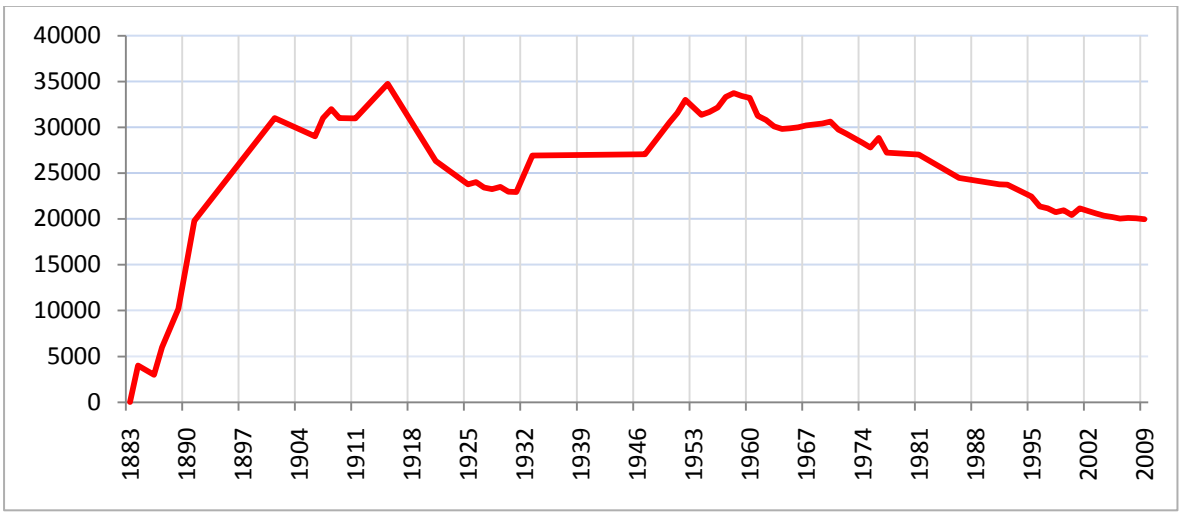
A social profile of Far West NSW is presented in Appendix 3 (it can be seen in full context in the RDA Far West Regional Plan, available on www.rdafarwestnsw.org.au). It shows the differences within selected communities within our region, compared to the national data. Within Far West NSW there are disadvantaged residents compared to the national situation, in terms of incomes and jobs. The Department of Sustainability Environment Water Population and Communities publication "Sustainable Australia - Sustainable Communities: A Sustainable Population Strategy for Australia", published in 2011 notes there is a "strong link between social disadvantage and location". It cites research by the Australian Social Inclusion Board that found more than 17% of people living in the most disadvantaged locations experience multiple disadvantage – that they are disadvantaged in three of more of six markers (the markers being income, work, health, education, safety and support). The publication continues:

"Not only are people in these locations more likely to be unemployed, but they are also less likely to be in a position to contemplate relocation to other areas due in part or wholly to financial circumstances and the high transaction costs associated with re-locating." (Page 37)

Other Challenges in Region

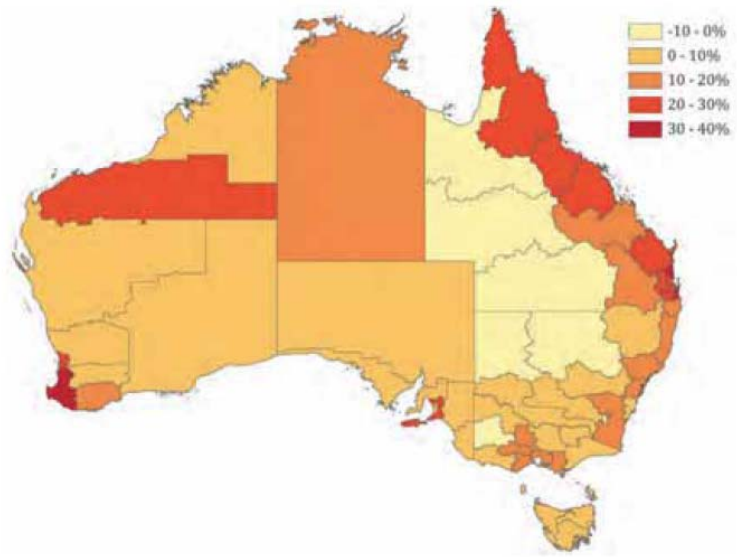
The current unemployment rate in Broken Hill is 7.7% and 14.3% for Central Darling Shire (Small Area Labour Markets, March Quarter, 2011). The unemployment rates in the region have remained at high levels like these since the global financial crisis. The population in the region has been in decline for some time. In Broken Hill, the population trend (Graph 1, using ABS data) shows some stability in the city population at around 20,000.

Graph 1 – Broken Hill Population 1883 to 2009



The region-wide population changes relative to other areas in Australia are indicative of the region's difficult struggle to remain viable. The data in the map below shows population losses averaging up to 10 per cent in our region over the last 10 years. The population losses in our region have been largely attributed to the cycles of mining and agriculture. The global economic crisis and the 10 year drought that broke only since 2010 have left their mark in our region.

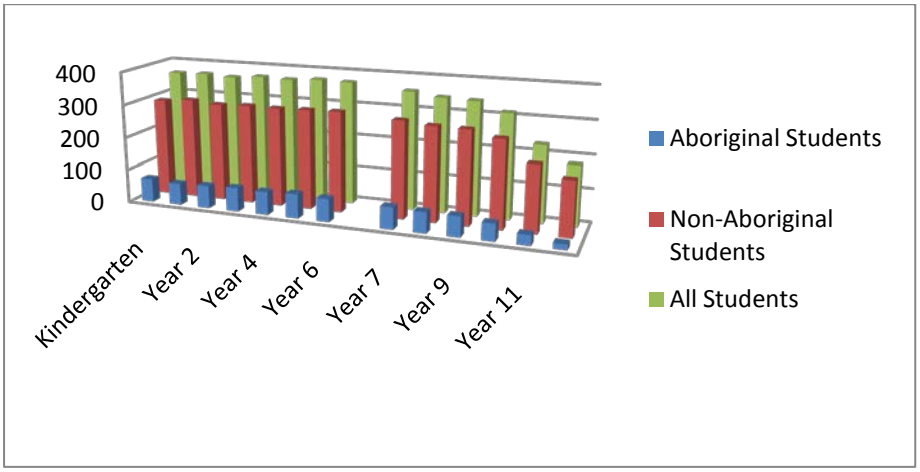
Figure 3 – Population Change in Australia in 10 Years to 2010



Source: Department of Sustainability, Environment, Water, Population and Communities. Population data ABS (2011)

Graph 2 data is sourced from regional education statistics. It shows average student enrolments in the Broken Hill area schools over a five year period. The data shows significant drops in enrolments amongst all students in Years 11 and 12, but highlights Aboriginal students are significantly more likely to leave school before Year 12 is completed.

Graph 2 – 5 Year Average Enrolments for All Years (2006-2010)



The technology literacy of people in our region is a critical concern - particularly among the baby-boomers and the elderly. ABS data from the 2006 Census was quite revealing about the high number of people in our region without the Internet, or who depended upon dial-up technology for their Internet connection. This data is now five years out of date but the RDA Far West NSW knows, anecdotally, that not much has changed in many parts of our region. The lower incomes of many people in the region means that not only is the Internet unaffordable, but the cost of purchase of plans pointless when connectivity can so often be extremely poor.

The perception that there is no value for money in paying for the Internet for such poor services is widely held and often expressed. The high capital cost of computers and the frequent need to upgrade and change hardware and software is a very real perception in our region among some of our people. We expect that in many parts of the country this is a very big issue. However, it is magnified in our region as these issues are quickly revealed in conversation and general community consultation endeavours. In some areas where Internet cafe arrangements are in place on a fee for service basis, the relatively low hourly rate for use is still considered too expensive. A year ago in a community meeting in Menindee, we compared, for example, the Menindee Transaction Centre's Internet access cost at $3 per hour to the Sydney Airport (domestic) $12 per hour rate. The local people were still not impressed. The cost of access to the Internet in Menindee was considered shameful given the following:

- Slow, poor service on the system in the centre;
- Poor quality of service is made worse by computers that are not fit for purpose since they are usually either very old and overdue for rollover, or hand-me-down, pre-loved Government computers;
- People would rather be able to be on the Internet at home but no fixed copper wires were installed;
- The experience of people with mobile broadband on phones also evoked stories of poor quality and high cost;
- Homes with fixed line Internet access in Menindee, with income earners prepared to pay for service, simply could not afford the monthly fee required to pay for the over-sized plans required to counter the general poor service quality.

We would also like to highlight some of the health and wellbeing issues in our region. These are very real challenges for our education, health and law and order personnel. The extracts from a “headspace” brochure below outlines some key statistics that are of great concern in our region, and they should also be of great concern to our nation’s leaders.

The Facts in Broken Hill

18-24 year olds have the highest prevalence of suicide in any age group.

95% of Broken Hill Year 10 students self reported alcohol use.

Self Harm Rates up 43% in 10 years.

15% Youth Unemployment.

1/2 the State average for completing Year 12.

8.1% Teenage births in GWAHS Area.

One in five affected by mental health problems.

Solutions to some of these troubles with our young people in the region can be provided via technology.

We urge the Joint Committee to view the Video and CD we have supplied on behalf of some talented community and support workers and volunteers who have great experience in reaching youth through technology. We also urge you to closely read the submission from Jason King who highlights some similar challenges and opportunities.

NBN Rollout and Relevant Concerns

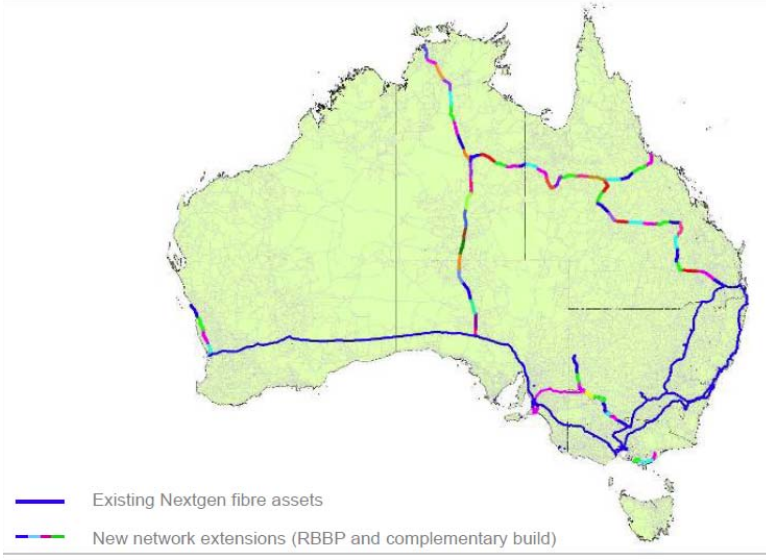
- What if there are delays to the NBN rollout in our region?
- When will the NBN be delivered?

Contemplating a delay in rollout of up to nine years could force RDA Far West NSW to rewrite strategic plans. We argue that we have a great urgency to improve communications now, without delay. Importantly, for planning and preparation in our region, our local stakeholders need to know when the NBN can be delivered to our region.

We note that the Joint Committee's terms of reference are more focused on Government objectives, take-up targets and service performance. However, the focus for our region is to find out when we can expect to see the rollout. Certainty of rollout timeframes is critical to regional economic diversification activities.

Broken Hill is a 'blackspot'(see representation of blackspots in Map below) – part of the Regional Backbone Blackspot Program, an Australian Government initiative with specific objectives of:

- delivering an economic stimulus to Australian industry;
- providing competitive telecommunications services to underserved regional markets;
- forming foundations for the National Broadband Network.



We have been advised that service readiness in our region will be September 2011 (Nextgen presentation, Broken Hill, June, 2010) and we believe that this readiness is on track. That means we will be ready for the rollout from September 2011.

- How can we avoid another jobs/training bad experience?

We note many local jobs could be involved in the project rollout. The region's leaders are all too aware of training people for jobs and then not being able to deliver any jobs, eg due to drought or the global financial crisis. There is also a good deal of experience now in 'Remote Service Delivery' training being delivered to the Wilcannia community with no follow-up jobs.

Knowing when the NBN rollout will occur will give us focus, and a purpose for training and other preparations. It will allow the Broken Hill City Council to better plan and prepare to assist with construction crews. It will provide incentive for our young people in the region to think about their future in a regional digital economy. For many people, certainty of the NBN rollout in our region will give hope and spark positive feelings about the future, improvements to quality of life and increased access and more equitable access to information and services.

Further, what will the jobs market be like after the rollout. Will customers need to wait for service contractors to drive out to the Far West, once a month or less frequently, to fix faults, connect new premises? It would make sense to have permanent service support jobs located in our region. The NBN Co is feverishly recruiting for jobs located in Sydney, Melbourne, Brisbane and Darwin. Why not put teleworking into real practice and base some of those critical jobs in a central regional area like Broken Hill. We note the Department of Broadband supports the idea of tele-working taking off – Broken Hill can become the home base for many technicians.

Our communities are willing to test such new initiatives and lead the way for the big changes to traditional thinking.

- Why is it that some of the worst parts of Australia's voice, video and data communications areas (eg Broken Hill, Wilcannia and Menindee) are being asked to "compete" for the NBN rollout with future rollout sites areas like Sydney, Melbourne, Armidale and Townsville? Regrettably, this region is among the most NBN-needy regions in Australia yet we have the fewest resources to dedicate to the NBN rollout effort?

We want to be ready for the rollout. If resources permitted, the region's leaders would spend time in the powerful cities of our nation visiting key decision-makers promoting the necessity and urgency. The reality is, we have no spare resources to do such actions and financial resources are too scarce to outsource.

The resources we do have in our region are our citizens. Key leaders in our regional towns not only do their day job, but they contribute many other hours in community services. There are many other people in our community who volunteer time and other resources to keep our region functioning.

A personal view on what the NBN improvements will offer to the Tibooburra community was provided by community member Mr Andrew Chapman, dated 25 July 2011:

The rollout of the NBN to the Far West of NSW is a welcome one. The NBN will provide a vital link in removing the isolation and remoteness felt by our communities socially and economically. Within these two factors I believe education plays a vital role, especially in my community of Tibooburra.

Education is a social medium that reflects the many changes within our society. One of the greatest influences of the 21st century has been the continual evolvement and growth of information technology. Today teaching and learning is underpinned by technology. In Tibooburra our school is the centre for teaching and learning in the district.

The school students in Tibooburra and the students in the surrounding districts connected by Distance Education Satellite Network rely on an efficient and fast Internet service to engage with the proliferation of social media that is

used to complement and drive education. The school staff relies on technology for professional support and training. Community members can use the technology infrastructure to access TAFE courses.

An improved Internet service will enable and empower everyone in Tibooburra to remove the barriers of isolation and remoteness. It will enable and empower an informed community which in turn is a strong and vibrant community.

We cannot afford to wait years and years for the NBN rollout.

Our community cannot afford a generation to be left behind because we had to wait.

- How do we get to understand more about the technical side of the NBN?
- What is the definition of a premise and what if there is no copper wire in place to a premise? Will housing in Broken Hill that is not connected now with copper receive fibre?

There is so much reading to be done if one expects to gain a full understanding of the NBB's technical structure. Our local IT professionals have queries that may impact upon their employers and customers. The NBN stakeholder consultation activities in region have occurred but are far too general to answer queries. It would be a valuable exercise to host formal technical briefings on the NBN in our region to inform and empower our region's professionals and interested leaders.

Also, it is important to note that our local Internet services are generally congested in peak office hours and also now, more and more, in "shoulder" periods to the business day, and also most times during the weekend. Depending on the Internet plan used to access the web, download times can be ridiculous and very off-putting. It is terrific that Governments and agencies are informing us much more about plans and reducing the use of paper by putting much information up on the Internet, but now it is time to give us the enabling tools to allow us to efficiently access that information.

- Will the cost of service be truly competitive? Will Telstra's USO endure and will it be made cost reflective to take account of price increases so that infrastructure can be maintained and upgraded as needed?

The most common NBN concern in our region is cost. There is widespread concern that the NBN will not lead to competition. Those in our community who have conducted their own research and understanding in this area are less concerned. We do expect competitive pricing for NBN services in our region and we do expect a much higher take-up rate in our community compared to current take-up rates, purely because the current services are generally not worth paying for unless (a) you have the money to pay for it (b) you need it, want it and (c) you have young people in the house who need it, want it. We contest that the take-up rate of Internet connections in our region, more particularly in Broken Hill, should increase as a result of the NBN because there should be much greater value for money than is available with current products.

- We are curious about the impact on quality of Internet service when satellite, wireless and fibre optic serviced customers seek to communicate. This will be a significant issue in our region with

much satellite and fibre interfacing. What information has the NBN Co on this topic to explain how our Internet users in region will be impacted?

It is a simple question and probably has a very simple answer. Some technical feedback would be useful. From the RDA Far West's perspective, it is difficult to conduct regional stakeholder communications with the motley coverage of the existing fixed, wireless and satellite services. We are forever mindful of file sizes and whether the recipient is using a smart phone or a brick, or dial-up services or ADSL, and so on. Our service provision in region is impacted by these issues.

The challenges are difficult enough due to the diversity of the region, for example the divide between low income earners and high income earners, the unemployed and the employed, differences in wealth and access to job opportunities, population distribution and other factors. However, the lack of reliable and consistently responsive communication tools in our region is arguably contributing to the ongoing region-wide challenges (unemployment, low Internet take up in deeply populated Indigenous areas, loss of youth from region, stakeholder fatigue and the unwillingness of Gen X and Gen Y to endure manual systems to circumvent lack of technology that baby-boom, social inclusion issues – the elderly, aged care, quality of life, access to information).

The NBN is not just about take-up - it is also about engaging Gen Y, economic diversification and grabbing new opportunities in region. We are attempting to engage Gen Y in region through a SharePoint facilitated program we call the Regional Leadership Advisory Network. This system is hosted by a data centre in Brisbane. Connectivity is so slow. The project is so worthy and so potentially powerful for our region that we must persist against the technical drawbacks. In the interim, users are reminded each time they log in how dreadful our regional Internet services truly are.

- One of the popular criticisms of the NBN, possibly by people who do not understand regional broadband experiences, is that it is an expensive exercise just to be able to download music and films faster. What is Government doing to educate the general population about the NBN?

In Far West NSW we have no misunderstanding about the usefulness of the NBN. We know it will support services in education, health, access to markets, open up new business opportunities, and yes, it will improve quality of life through entertainment and faster, more reliable access to information generally.

Here is an expansion of the views of a senior education department manager in Broken Hill (Darryl Ward, NSW Department of Education:

School communities in the Far West and especially in the Broken Hill SEG depend on a fast broadband connection to help overcome the issues associated with isolation and remoteness. Schools already access a strong video conferencing network that provides unique professional learning opportunities for staff and learning for students. The internet and research also plays an important role in teaching and learning at all levels. Any bandwidth improvement that improves download time, improves picture quality and sound over VC's and gives greater access to the world for our students is welcome.

Several schools are already experimenting with remote deliver of programs to other sites and increased bandwidth will help this. Western Region also utilises the VC and internet to run a virtual selective school (Excel), again greater speed and bandwidth will increase the learning opportunities in this innovative program.

School's cannot wait to be "hooked" up to a improved service. In some cases their access has been limited in the past by the copper wires and capacity. The need for access to services continues to grow as teachers incorporate ICT elements into quality teaching and learning. One major issue will be access for remote schools where the cable does not go to, an example may be Whitecliffs or Tibooburra. When will the satellite connection for these areas be rolled out to give them equity of access if the cable does not reach that community.

Omnia mutantur, nos et mutamur in illis - "All things are changing, and we are changing with them"

Appendix 1

Economic Update for Far West NSW, August, 2010

An improved view of this document, “Far West Region Growth Update Aug 2010”, is available at this link: http://www.rdafarwestnsw.org.au/default.asp?PageID=WhatsNew

Regional Development Australia FAR WEST NSW

BROKEN HILL CITY COUNCIL

DEVELOPMENT UPDATE: FAR WEST REGION NSW

Major Projects

Increased activity by mining companies in the Far West Region reflects a recovery from the adverse impacts of the global economic slowdown in 2008 and 2009 and a positive outlook for the future. Current development activity in the resources sector ranges from exploration and drilling to mines beginning operation.

Projects initiated in the last 12 months include Exco's **White Dam** joint venture gold mine with construction completed and operations having begun in early 2010. Construction is almost complete for Uranium One's **Honeymoon Mine** with operations expected to begin in late 2010. Bemax has also completed construction and commissioned their new **Snapper Mine**, located south of Broken Hill.

Companies presently awaiting government approval include Broken Hill Operations which is currently seeking approval from the NSW Government to renew operations at the **Rasp Mine**. Additional planning and preparations are also currently being undertaken for the **Silverton Wind Farm** with decisions on future construction expected soon.

Carpentaria Exploration Limited is undertaking drilling as part of the **Hawsons Iron Project**, 60km south-west of Broken Hill.

Non resource projects committed for the region include the expansion of the **Broken Hill Regional Aquatic Centre** and development of the **Broken Hill Film Studio** which are being undertaken by Broken Hill City Council with State and Commonwealth Government funding support. The **Broken Hill Plaza Shopping Centre** is planned to be constructed by Leasecorp in 2011 and will represent a significant increase for retail activity.

Only projects where updated data was made available have been included in the economic impact modelling. This has been done to ensure a conservative estimate of economic impacts while ensuring that projections are based on current and reliable data. Mining projects included in the previous edition of the study that have been removed due to lack of available data include the **Silverton Wind Farm** and Havilah's **Kalkaroo, Mutooroo, Oban** and **Benagerie (Portia)** projects.

The table below provides a summary of the major projects planned for the Far West Region with the map (opposite) indicating the location of the mining developments

Growth Indicators

The economic indicators outlined in the table below demonstrate that the Far West Region's economy is still feeling the effects of the global economic slowdown. The region's population fell by 0.5% to 22,731 in 2009 and unemployment rose considerably to 9.1% in the March Quarter 2010.

Investment in the region was strong with the value of both residential and non-residential building approvals recording growth during 2009. Demand for housing declined significantly in the region with houses selling for an average of $121,000 in the December Quarter 2009, a decline of almost 20%. Visitation to the region also declined as indicated by tourism visitors and airport movements.

Indicator	Period	Level	Ann % Chg
Population	2009	22,731	-0.5%
Unemployment Rate	Dec Q 2010	9.1%	1.5%
Residential Approvals	2009	$9.18M	5.3%
Commercial Approvals	2009	$25.57M	232.8%
Median House Price	Dec Q 2009	$121,000	-19.1%
Overnight Visitors	YE Mar 2010	417,300[e]	-12.8%
Broken Hill Airport RPT	2008-09	55,809	-6.1%

Notes: All data is valid as of 31st July 2010, (e) Outback Tourism Region.
Sources: ABS 3218.0, OESWR SALM, ABS 6291.0, NSW Department of Housing, Tourism NSW, Bureau of Transport and Regional Economics

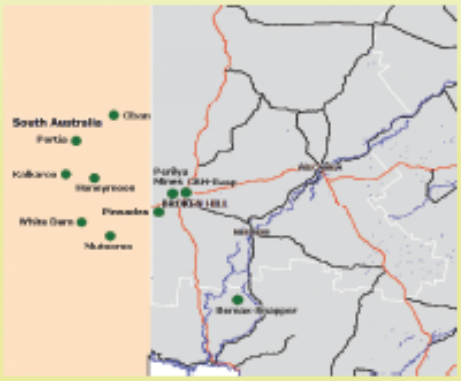


Table 1: Planned Major Projects Included in Economic Impact Modelling

Company	Project	Probability	Construction Phase: Year Start	Total $m	Region $m	Jobs	Operation Phase: Year Start	Life Years	Total $m	Region $m	Jobs
Bemax	Snapper	High	2009	$105	$32	150	2010	15	$40	$24	125
Exco Resources	White Dam	High	2009	$14	$3	100	2010	3	$20	$2	29
Uranium One	Honeymoon	High	2009	$138	$48	120	2010	7	$25	$15	60
Broken Hill Operations	Rasp Mine	Medium	2011	$145	$44	150	2012	13	$57	$34	160
Carpentaria Exploration	Hawsons Iron Project	Low	2013	$2,000	$400	1,000	2014	50	$600[M]	$360[M]	800
Leasecorp Projects	Broken Hill Plaza	Medium	2011	$18[M]	$12[M]	85	2012	40+	$25[M]	$8[M]	290
Broken Hill Council	Aquatic Centre Expansion	High	2010	$5	$5	100[M]	2011	40+	$3[M]	$3[M]	30[M]
Broken Hill Council	Film Studio	High	2010	$2	$2	6	2010	10	$15	$15	19

Note: All data is valid as of 31st July 2010, (e) Estimated by AECgroup using industry benchmarks.

DEVELOPMENT UPDATE: FAR WEST REGION NSW

Economic Impacts

The economic impact modelling assesses projected impacts of major projects on the Far West Region from the base year of 2006 used in the original study. The region recorded economic and employment growth in 2007 and 2008 as construction commenced on several projects. Employment in the mining industry then declined significantly in 2009 as a result of existing mining companies resizing operations and fell below 2006 levels. Employment declined further in 2010 as construction was completed for several mines and operations reverted to smaller ongoing workforces.

The economic impacts for the Far West Region are projected to total an additional $19M in value added (GRP) in 2011 based on a medium scenario. This projected growth is primarily due to expected recommencement of the Rasp Mine and construction of the Broken Hill Plaza and Aquatic Centre expansion (see **Figure 1**).

Employment in the Far West Region is projected to increase in 2010 based on the medium scenario with employment up to 440 Full Time Equivalent positions above the 2006 workforce. The employment breakdown includes 183 direct jobs and 257 flow-on jobs with the total representing growth of 4.4% from 2006 (see **Figure 2**). Employment impacts are expected to peak during 2011 before declining over time as resources in some mines are exhausted.

The high growth scenario is significantly higher than the low and medium scenarios as a result of the potential major investment of the Hawsons Iron Project. While the project is at an early stage of investigation, it could result in a billion dollar investment should it proceed. As in previous years, the high scenario includes all major projects (where data has been provided) under investigation and planned for the region and represents an upper limit of growth. It should therefore be interpreted with some caution as the Hawsons Iron Project is far from being committed.

The expected employment impacts would result in growth across a range of industry sectors in the Far West Region (see **Figure 3**). The retail sector is expected to average almost 40% of employment growth over the next 10 years (257 jobs) due to the operation of the new Broken Hill Plaza. The mining sector is projected to account for 25% of employment growth, equating to 173 jobs, as a result of new projects. Other industry sectors expected to experience employment growth include finance, business and communications services (51 jobs or 8%) and construction (50 jobs or 7%).

Figure 1: Projected Additional GRP ($m)

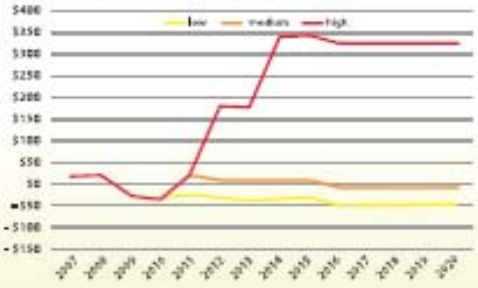
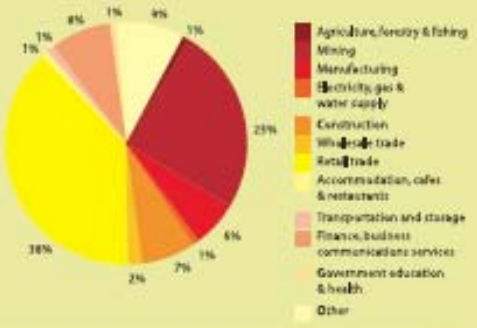


Figure 2: Projected Additional Employment (FTE)

Figure 3: % of Additional Employment by Industry (Projected Average 2010–2020) – Medium Scenario



Contacts and Support

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Profile compiled by AECgroup. Published by Regional Development Australia – Far West NSW and Broken Hill City Council in August 2010. RDA Far West NSW, Broken Hill City Council and AECgroup would like to thank all organisations contributing to this profile.

Appendix 2

Speed Test Results

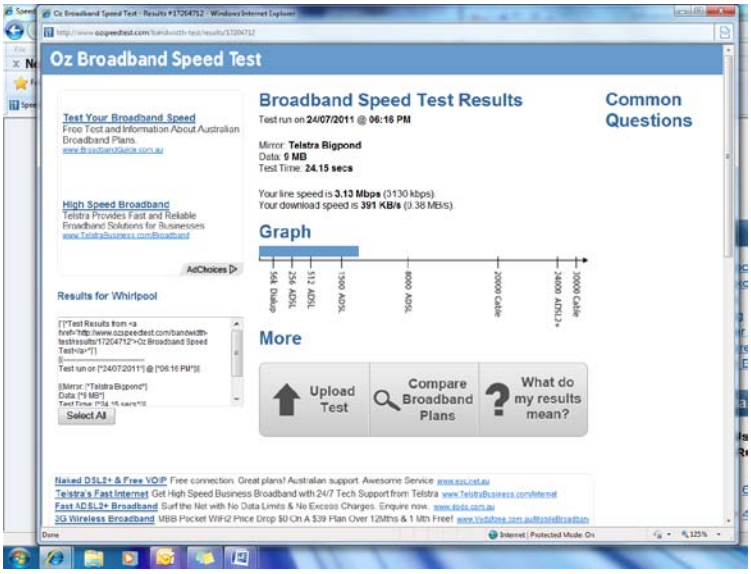
Broken Hill Broadband ADSL connections:

Date/Time	Location	Download Mbps	Upload Mbps
Sunday 24/7/11 5.30pm (Test 1)	Broken Hill residence, 4.5km from Telstra Exchange, plan speed 20Mbps	2.61	1.02
Sunday 24/7/11 10.45pm (Test 2)	Broken Hill residence, 4.5km from Telstra Exchange, plan speed 20Mbps	2.39	0.94
Sunday 24/7/11 5.50pm (Test 3)	Broken Hill residence, 4.5km from Telstra Exchange, plan speed 20Mbps	3.13	0.38
Sunday 24/7/11 10.50pm (Test 4)	Broken Hill residence, 4.5km from Telstra Exchange, plan speed 20Mbps	2.48	0.3
Monday 25/7/11 8.50am (Test 5)	RDA Far West PC, 200 metres from Telstra Exchange, plan speed 8Mbps	1.96	0.89
Monday 25/7/11 8.53am (Test 6)	RDA Far West PC, 200 metres from Telstra Exchange, plan speed 8Mbps	5.87	0.734
Monday 25/7/11 11.30am (Test 7)	RDA Far West PC, 200 metres from Telstra Exchange, plan speed 8Mbps	4.55	0.55
Monday 25/7/11 1.19pm (Test 8)	RDA Far West PC, 200 metres from Telstra Exchange, plan speed 8Mbps	4.71	0.588

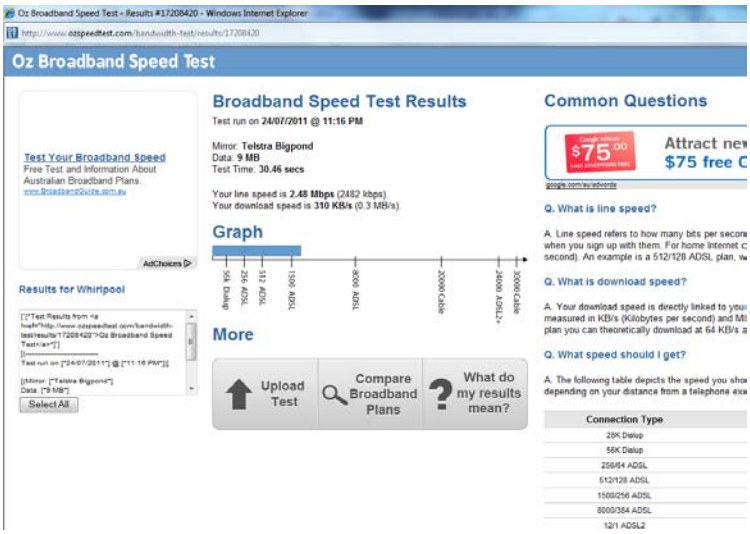
Test 1

Test 2

Test 3



Test 4



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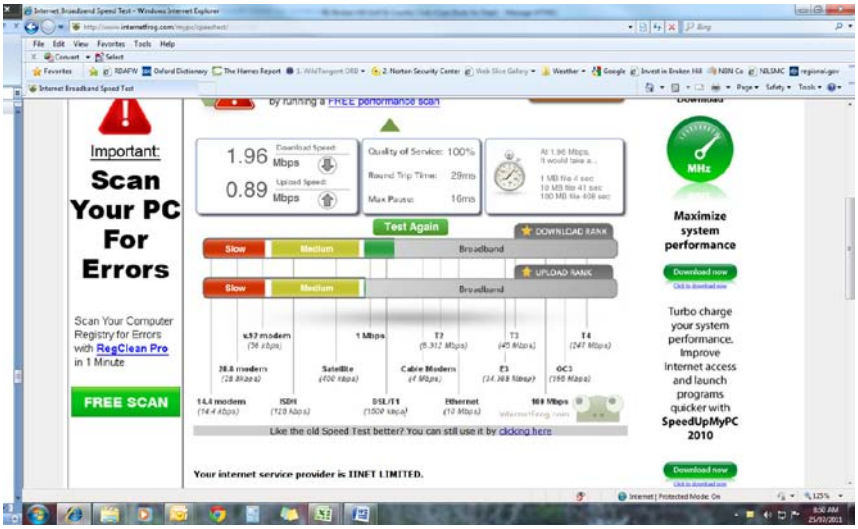

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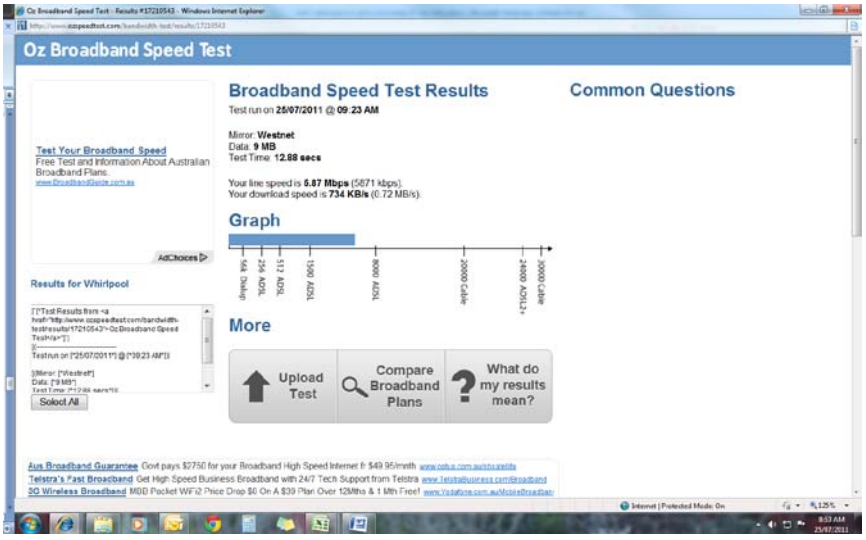

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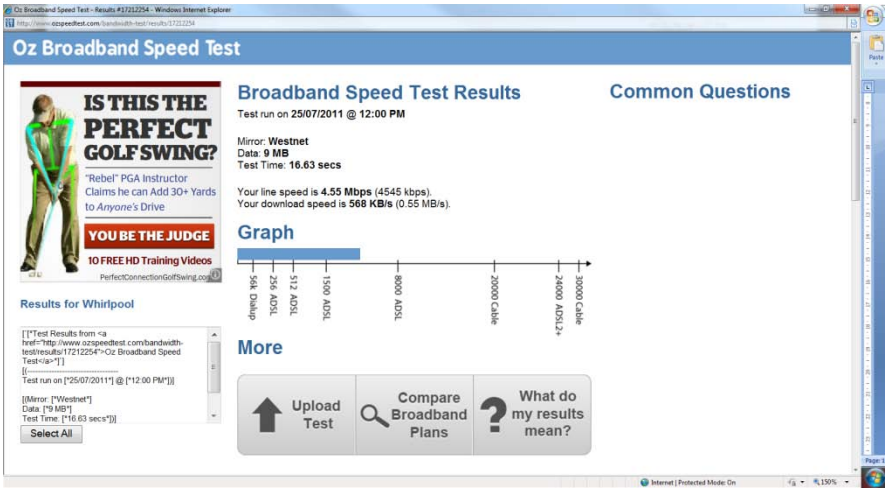

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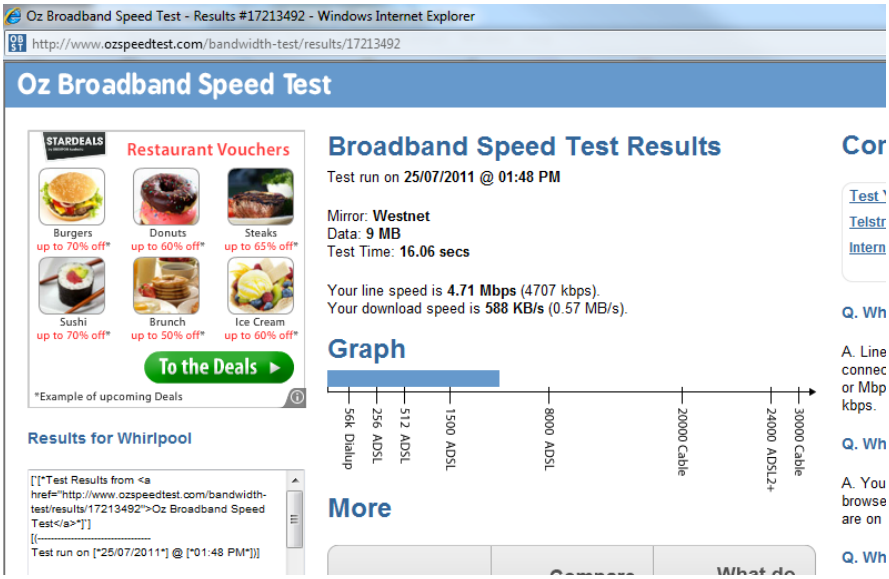
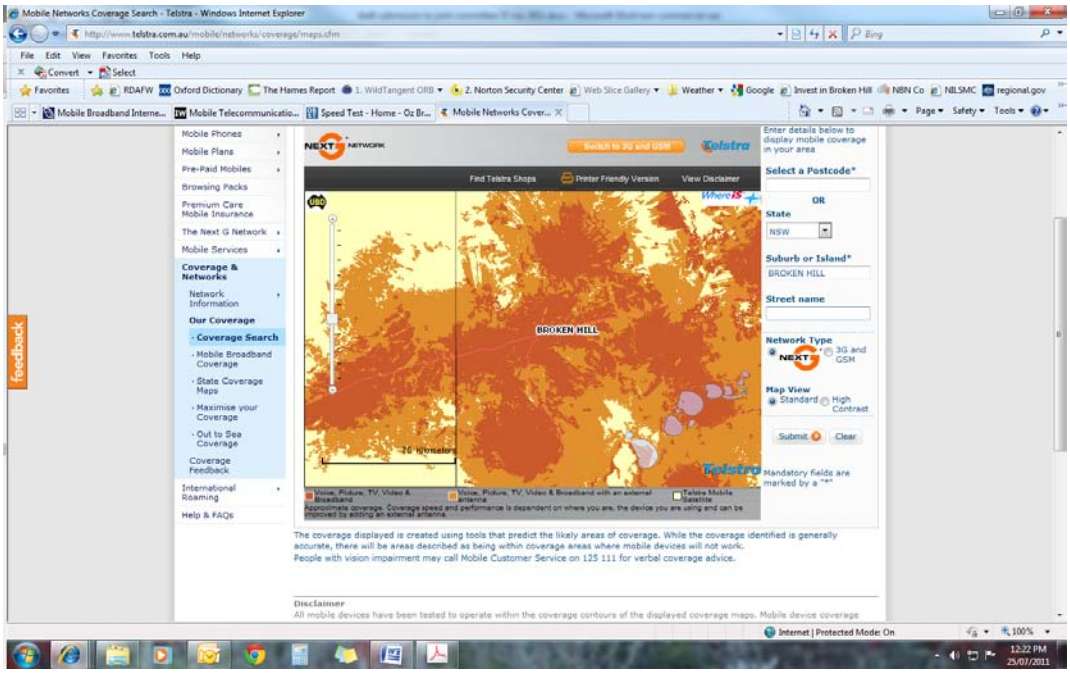


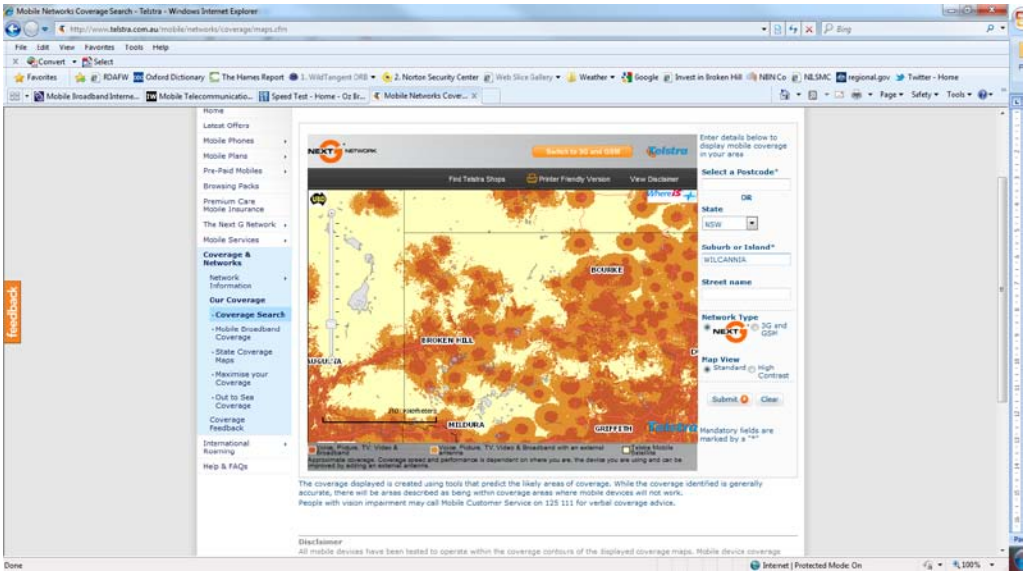
Next G Mobile Broadband Services

Bigpond advises its customers about mobile broadband speed as follows: “Typical download speeds are from 1.1Mbps to 20Mbps in all capital city CBDs and selected metropolitan, regional and rural areas. In other areas speed ranges will be less. Capital CBD means within 5km of the GPO of a capital city. Speeds vary due to factors such as distance from base station, local conditions, user numbers, hardware and software configuration.” http://go.bigpond.com/wireless/?ref=Net-Head-Int-Plans-Wireless [accessed 25/7/11]

Map of Next G coverage in Broken Hill area



Next G coverage in Far West NSW region



Source: http://www.telstra.com.au/mobile/networks/coverage/maps.cfm [Accessed 25/7/11]

The text under the map reads: "The coverage displayed is created using tools that predict the likely areas of coverage. While the coverage identified is generally accurate, there will be areas described as being within coverage areas where mobile devices will not work."

Note that the darkest orange area represents Voice, Picture, TV, Video & Broadband availability; the lighter orange area notes the same services, but with an external antenna; the palest colour indicates Telstra Mobile Satellite services provided here.

Next G Mobile Broadband connections (Adelaide server, iPhone app)

Date/Time	**Location**	**Download Mbps**	**Upload Mbps**
25/7/11 at 11.31 am	Broken Hill RDAFW office	5.261	0.318
Tuesday 13 April 2010 at 3.24 pm	Menindee	1.419	0.210
Saturday 17 April 2010 at 9.05am	Broken Hill (BHGCC)	0.222	0.08
Tuesday 20 April 2010 at 11.34 am	Wilcannia	0.051	0.054
Tuesday 20 April 2010 at 11.33 am	Wilcannia	0.208	0
Saturday 1 May 2010 at 12.56 pm	BHGCC	0.497	0.068
Saturday 1 May 2010 at 9.10 pm	Residence in Broken Hill (same as ADSL tests above) – but must go outside house	3.358	0.286
Monday 25 July 2011 at 4.23pm (Test 9)	BHGCC (club house PC link)	1.35	0.62
Monday 25 July 2011 at 8 pm (Test 10)	BHGCC (club house PC link)	0.76	0.07
Tuesday 26 July 2011 at 4.50pm	Tibooburra	3.79	0.8
Tuesday 26 July 2011 at 11.55am	Tibooburra	2.39	0.48
Monday 25 July 2011 at 10.50pm	Tibooburra	4.12	0.58
Monday 25 July 2011 at 3.15pm	Tibooburra	4.46	0.41
Monday 25 July 2011 at 11am	Tibooburra	4.82	0.57

Test 9

Test 10

Appendix 3

Social Characteristics in Far West NSW

	Broken Hill	Wilcannia	Menindee	Australia
Median Age (of persons)	42	31	42	37
Born Overseas (of total population)	4.5%	2.5%	6.5%	22.2%
English Only (spoken at home)	91.6%	91.7%	95.4%	78.5%
Median Individual Income (weekly)	$334	$275	$317	$466
Median Family Income (weekly)	$829	$630	$637	$1,171
Single Parent Families (of total families)	20.5%	22%	20.5%	15.8%
Average Household Size (persons)	2.3	3.2	2.1	2.6
Living in Houses (of all occupied dwellings)	90.9%	83.9%	87.6%	74.8%
Living in semi-detached dwellings	2.8%	7.0%	0.0%	9.2%
Living in flats or units	4.0%	0.0%	3.3%	14.2%
Dwelling fully owned (of private occupied)	48.9%	26.6%	45.1	32.6%
Dwelling under purchase	25.2%	5.5%	14.1%	32.2%
Dwelling rented	17.8%	53.8%	33.3%	27.2%
Median Mortgage (monthly repayment)	$650	$477	$650	$1,300
Median Rent (weekly)	$110	$87	$50	$190
Rented/Real Estate Agent (of total rented)	26.4%	0.0%	0.0%	50.5%
Rented/Housing Authority	9.4%	16.8%	12.7%	14.9%
Rented/other Landlord	58.2%	79.4%	80.4%	31.6%
Employed full-time (% of labour force)	55.2%	49.0%	57.1%	60.7%
Employed part time (% of labour force)	28.4%	28.6%	20.4%	27.9%
Stated Unemployed (% of labour force)	9.0%	10.6%	15.0%	5.2%

Source: Australian Bureau of Statistics 2006 Census of Population and Housing – 2006 Census Quick Stats

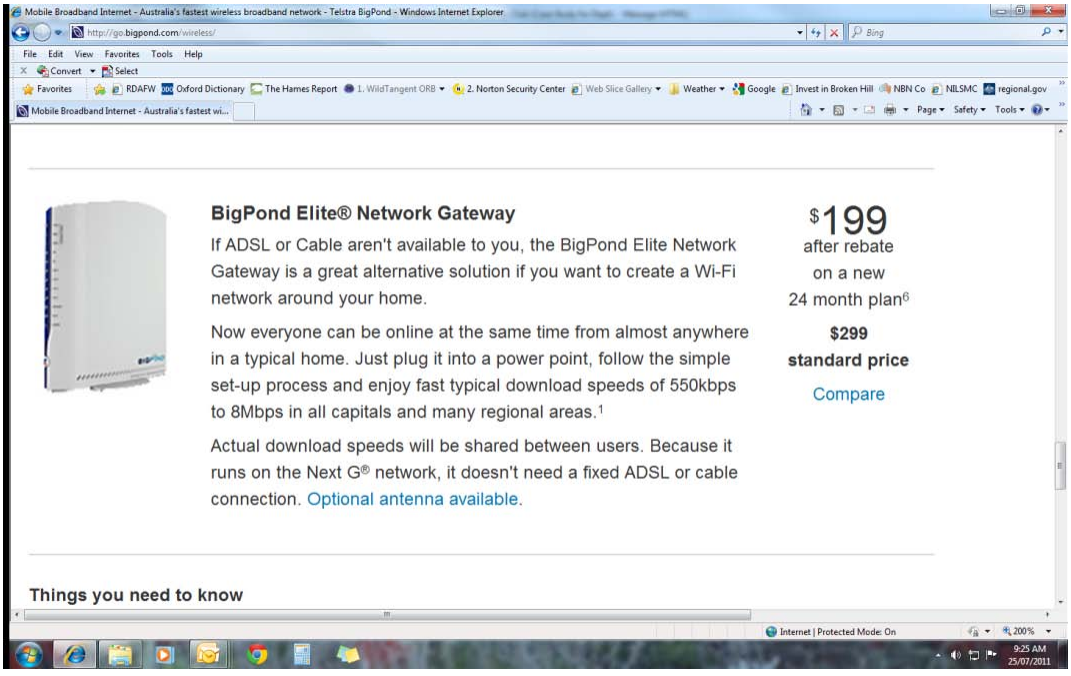
Appendix 4

Case Study of Community Development Initiative

Broken Hill Golf and Country Club Ltd

Broken Hill Golf and Country Club Ltd uses a Telstra mobile broadband plan on the Next G network as there is no ADSL alternative.

- The plan uses the "BigPond Elite Network Gateway" with an external antenna to access the "Superfast Liberty 3GB" plan. As shown below in the marketing pitch, it has "fast typical download speeds of 550kbps to 8Mbps in all capitals and many regional areas. Actual download speeds will be shared between users".
- The club currently has two computers connected to the gateway with ethernet cable (two spare ports and wireless access available on gateway).
- Mobile connections can be difficult in large areas of club house; phones may pick up signal on some parts of the course but calls will drop out at any time. Sending text messages from the club house is a challenge and most will fail.
- The Broken Hill race track, next to the golf course, has the same issue with patrons regularly complaining about no Wi-Fi reception. Up to 10,000 or more race goers attend the annual St Pats Races carnival.
- Visitors to the city with non-Telstra carrier services (eg SingTel Optus or Vodaphone Hutchison) should not bother to pack their mobile phones, no matter how smart these phone manufacturers purport their products to be, as signals at many other points throughout the city area are too dull to allow connectivity.



Source: http://go.bigpond.com/wireless/ [Accessed 25 July 2011]

This wireless service is insufficient for the club to upgrade its Tier 1 connection with Golf Link to enable more efficient processing and increased, enhanced services from Australia's key site which manages the national handicapping system. Golf Link is part of Golf Australia which manages golf in this country. This system requires daily connectivity with Golf Link in Melbourne to ensure software updates and changes to members' handicaps and status of handicaps.

The club is required to have the following for Tier 1 access to Golf Link:

- Computer equipment, with preferably Windows XP operating system with IE6
- Internet access – a dial-up connection is adequate but broadband is highly recommended

It is the wish of the BHGCC Ltd board and members to upgrade its access to Golf Link through a Tier 3 service provider. The service provider selected by BHGCC Ltd also supplies more than 200 golf clubs in Australia, and about 40% of these have less than 300 members. The membership of BHGCC Ltd is approximately 300.

The reality is that the BHGCC Ltd needs the upgraded connectivity urgently to enhance offerings to club sponsors, members and visitors. The benefits are expected to eventually outweigh the costs but the club does not have the financial capacity to pay for hefty communication infrastructure links. However, fundraising activities this year have already raised more than $9,000 – about 60% of the funds necessary for the upgrade.

The Tier 3 connectivity would enable the BHGCC Ltd to grow and expand and take advantage of other technologies that can support other critical operational activities that also contribute to the sustainability of the club.

The BHGCC Ltd provides a popular community facility which enhances the quality of life for the region's residents and visitors (eg business travellers, tourists). The facility contributes to healthier lifestyles of residents and is a pleasant, picturesque environment for weddings and other memorable events.