




**Murrindindi Shire Council
Submission to the 2011-12
Regional Independent
Telecommunications Review**



Background

The Shire of Murrindindi is located 50 -130 kms north east of Melbourne with the Great Dividing Range on its Southern and Eastern borders. It has an area of 3,889sq kms of which 48% is crown land, comprising forest reserves and parks on mountain ranges that divide the shire. The population of 13,505 is spread across the Shire with the three largest townships being Alexandra, Yea and Kinglake, each having about 2000 people.

There are no major highway arterials nor rail links to support heavy commercial transport. Agriculture, timber, freshwater fisheries, tourism, retail and community services (including education and health) are the main industry sectors.

Electronic communications have not kept pace with advances experienced in metropolitan areas. There are areas of the Shire where fixed line telephone and/or terrestrial mobile telephone services are not available. Satellite mobile phone is an expensive option that has not been widely taken up.

For data communications the main townships have had ADSL with the outlying areas still progressing from dial-up and ISDN access to Satellite.

Some 40 percent of the Shire was burned in the February 2009 bushfires but the whole of the municipality was affected by the relief and recovery process. Having moved through the recovery phases to reconstruction it is timely to make this submission to discuss the needs for improved communications of all types across the Shire.

Council's Economic Development Strategy 2011 – 2016 states that by *“By focusing on our inherent natural assets and close proximity to Melbourne, there is enormous opportunity to create an economy that is resilient to the changing times whilst continuing to build on our traditional primary industries.*

Realising this opportunity must be underpinned by rapid redress of poor telecommunications across the shire. Specific recommendations contained in the Shared Infrastructure section of the Strategy include:

5.3.3 Build broadband and mobile phone capabilities

- Enhance forecasting ability of small business to ensure greater efficiencies
- Provide an enhanced on-line experience for the general public considering visiting the region
- Enhance local education opportunities
- Improve capacity for home based enterprises

5.6.2 Communications (including broadband)

- Advocate for investment in transmission towers to improve mobile phone, radio and television communications
- Actively seek test case opportunities for the National Broadband Network
- Investigate the potential of a new model of delivery for Broadband (eg. the Towong initiative)

Emergency Communications

The February 2009 bushfires highlighted many of the communications black spots in the Shire, especially for mobile telephone coverage. In the South and West, the communities of the Kinglake Ranges, Flowerdale, Strath Creek, Murrindindi-Woodbourne and Marysville and the Triangle experienced direct impacts, in part due to an inability to be warned or to find out where the fires were heading. Black spots in the North, around Highlands, Caveat, Terrip Terrip and Fawcett again hindered warning messages and the coordination of fire relief crews. While there has been some improvement in mobile coverage in the subsequent years, it is still quite common in the above listed areas to find no mobile telephone communications are available.

Often the recent focus in discussing communications problems has been solely in relation to the fire threat. This is understandable but at an individual basis the ability to get medical help when needed in an emergency is a more pressing and more likely requirement. This is a daily background low level concern that can be revealed as a catastrophic issue when support is needed most.

The lack of mobile communications in an emergency is compounded by the move by State Government agencies to use such systems for disseminating early warning messages of adverse weather conditions and fire reports.

Communities have taken it upon themselves to devise alternate means to attempt to overcome these deficiencies in communications that others can take for granted. Satellite telephone systems and UHF vehicle based radio networks have been established. While initial costs have often been subsidised, the higher costs of ongoing operations, maintenance and specialist service plans still have to be covered by individuals and can be a deterrent to uptake.

From the 2009 experiences, it is recognised that there is no single solution to the provision of emergency communications. There has to be a series of overlaying technical solutions to cater for as many contingencies as possible. A key layer will be access to AM and FM broadcast radio. The local community broadcaster, Upper Goulburn Community Radio (UGFM) is a designated emergency broadcaster following its successful operations during the 2009 bushfires. But to be fully effective, additional repeater stations need to be installed. Similarly ABC radio 774 is an emergency broadcaster that cannot currently be received in all areas of the Shire and needs more repeater stations.

It is also worth noting that in addition to its crucial role in emergency management and crisis response, adequate telecommunications infrastructure is critical to community and economic recovery.

NBN Implementation and the Digital Economy

Making high speed internet access available throughout Murrindindi will have a major impact on the economic, social and amenity aspects of the Shire. However, while the provision of such services would have the capacity to reduce the current city – country digital divide, if not properly implemented the NBN could easily make a less than adequate situation worse.

NBN provides the means to take advantage of all that the Digital economy has to offer. In considering the rollout of NBN and its impact on regions versus city, the main influences within the comparison are coverage, data loads and timing.

Rural areas experience comparative deficiencies in coverage and data loads. While city business and homes have ADSL, only the larger towns in the Shire have that service.

Broadband access is available to all but at costs very much higher than in the city. With no other option, customers on Satellite links find the actual useable services are degraded due to the number of users being oversubscribed. Satellite services rarely deliver advertised data speeds and this is on top of the inherent lag of such systems which limits the use and quality of video conferencing and other real time applications.

The assurances from NBN Co that services will be charged at the same wholesale rate across Australia and that satellites with new technologies will not be overloaded will provide better outcomes at reduced costs. This will result in far greater uptake across the Shire.

Initial planning for NBN indicated that implementation in most rural areas would be very much later in the project (ie. many years). These delays will further exacerbate the City – Country digital divide. It can be expected that system applications and business practices will continue to expect/require ever increasing data speeds to be the normal practice and be designed to operate within such high speed conditions. The earlier availability of increased speed and functionality will provide an ever greater competitive advantage for city based businesses over country competition, further impacting regional and rural economies.

There is an increasing use of data over the mobile phone network. While not part of NBN, it should be recognised that the lack mobile phone coverage discussed in the above section on Emergency Communications will also adversely impact the City – Country digital divide. There is now the expectation that e-mails, internet searches and social media can be accessed at will using mobile phones and tablets. Lack of such access is a barrier to attracting people and investment to many parts of the Shire and has an impact on our reconstruction program.

Wireless and Satellite

In earlier Commonwealth subsidised broadband access programs, wireless and satellite services were established. As discussed earlier, current experience with Satellite has shown that services have become degraded concurrently with an increase in demand and expectations of higher speed services providing greater data downloads. People have learned that satellite has fundamental limitations for some types of communication and also that they are less flexible in meeting increasing demands.

Experience with Wireless systems was marred by service providers over promising and under delivering in many instances such that there are no longer any wireless based services within the Shire that are independent of mobile phone systems. The problems that were experienced related to too many subscribers on each network most of which had just a single base station; poor maintenance of the base station; and distance from the base station. The advantage to easily adjust to increased demand when compared to satellite was never experienced due to the withdrawal from the market of the service providers.

It is recognised that Satellite is the only viable option for some of our more remote households and businesses. However, there are many localities with sufficient numbers of residents and businesses to warrant smaller wireless networks with overlapping coverage and backhaul links to cable installed towns. This could provide a solution of greater capacity and speed; with a

greater ability to readily expand; and that is cheaper to establish and maintain than multiple satellite links.

Digital Economy Opportunities with NBN

The major challenge facing the Shire is to retain and gain more people to undertake the recovery after the 2009 bushfires. Early implementation of NBN or other high speed data solutions at an affordable rate would be a major contributor to achieving the goal. Some areas where NBN will improve working and living in the Shire are discussed below.

Education

There are no tertiary education facilities within the Shire. The nearest TAFE is approximately 60kms away and is serviced by infrequent bus connections. Universities are a 2 - 3 hour drive from the centre of the Shire, again with no easily accessible public transport link. The secondary schools are small and limited in the range of subjects that can be offered. The two Secondary Colleges interchange students with different subjects covered by each school to increase the options for Years 11 and 12. There are limited video conferencing facilities. NBN would provide the basis for overcoming many of the current technical difficulties.

A new Training institute is being opened in 2012 which has the ability to provide remote learning via the internet and video conferencing. It will have formal agreements with the Victoria University, other Universities and TAFEs to support remote learning modules within a pathway to higher education courses. Access to high speed broadband will be a key to the Institute's success and the ability for students to study without leaving home.

The loss of young people from the region that are forced to leave to pursue study opportunities has a number of negative impacts including loss of viability of community groups (eg. sporting clubs) and small businesses in terms inadequate labour supply.

Tourism and Hospitality

Tourism and Hospitality is a major industry for the Shire which was set back by the 2009 bushfires. NBN will :

- Support the development and use of virtual visitor information centres with tourism maps, information, access to individual operators and automatic booking systems.
- Enable tourists to maintain their normal social media contacts at speeds that will not detract from their overall experience of the area.
- Demonstrate to prospective residents they can enjoy modern communications while living in the country.
- Provide information and access to early warning systems to provide an additional sense of security for visits in summer months (tourism has dropped off significantly in summer since the fires).

Early Warning

NBN will enable communities to access real time information on weather and fire events from weather stations, flood level indicators, fire spotting towers and infra-red fire detection cameras. This will provide a further layer of protection and early warning system redundancy.

Social Support

Access to reasonably priced, high speed services will support social interaction to encourage people to stay in the area. The elderly can be assisted in staying in their homes for longer with remote monitoring and more effective contact with relatives through video conversations.

Social media and video connection will also support community groups to function at a higher level.

The gradual demise of music CD's with the concurrent shift to download distribution of movies adds to the need for increased speed in country areas.

It is also noted that poor mobile telephony has resulted in an equity of access issue. Coverage remains patchy with major carriers and is largely inadequate for remaining service providers. Many in the community are therefore unable to take advantage of low cost competition for smart phone plans and the like which is particularly an issue for disadvantaged socio-economic pockets of the community.

Procedural Issues

Most Government functions and social services are geared to supporting people in cities and large regional towns and have only slowly been evolving to make use of computer based access. With NBN there is an opportunity to provide the same ease of access regardless of where a person lives. However, to come to fruition these improvements will require new processes to be developed in parallel with the introduction of NBN.

Remote Maintenance

The maintenance of computers, vehicles and industrial machinery is increasing being undertaken remotely from specialist support centres. Reliable high speed data links will accelerate this trend and it is imperative that country areas have access to such services. In the Shire it is already becoming difficult to maintain home computers due to the inability of slow speed access to support update versions of operating systems and applications via the internet.

Health

People with chronic illness and requiring long term specialist support currently spend a lot of time travelling to Melbourne or large Regional centres, often for procedures or checks that are minor and take very little time. In combination with limited public transport services, it is not unusual that a 30 minutes consultation with a specialist can mean travel on two days with the need for overnight accommodation. Even using private cars will result in four to six hours

travelling time. High speed video links will enable many of these consultations to be undertaken remotely and thus reduce the stress of travel on patients who often are already very ill.

Agriculture, Horticulture, Fisheries and Timber

Primary Industry pursuits will be enhanced by easy access to local and regional weather stations; up to date market information; remote access to veterinary and other specialist services; product and equipment use and maintenance information; on-line ordering and sales; and detailed mapping. Industry bodies and Government departments are continuing to increase on-line business relations that are gradually becoming the sole means to receive support or to demonstrate compliance with regulations.

Retail Trade

Retail business will benefit from the NBN through the provision of on-line sales and marketing. Ordering and distribution will be made more efficient. High speed broadband will enable smaller businesses to compete with major retailers particularly in locally based, niche markets through increasing access to a wider range of suppliers and customers.

Micro Business

A significant proportion of the shire's business community is comprised of micro and home based business. This is particularly prevalent in areas currently least well serviced by mobile telephony and broadband. The ability for the shire to capitalise on its many lifestyle attributes and continue to attract 'tree changers' to the region, many of whom will establish home based and micro business, is compromised without adequate telecommunications infrastructure. It is worth noting that many of the localities in high demand for lifestyle properties are likely to be outside of the reach of the NBN rollout and therefore require investigation and fast tracking.

Information and Training for NBN Consumers

The rollout and uptake of NBN will need to include information on the possible uses; latest software applications pertinent to industry sectors; experiences of other NBN consumers; and security. Additional emphasis will have to be placed on ensuring that later implementations such as that planned for Murrindindi are provided the opportunity to catch up. This may require funding for further training and software development to meet specific needs within the Shire.

Summary

The Shire of Murrindindi has experienced the impacts of poor communications and Council has highlighted the problems to Government agencies and service providers. There have been some improvements, in areas where solutions match commercial priorities. But there are still many localities where telecommunications access is poor and solutions are either non-existent or the available solutions are inflexible or cost prohibitive.

Access to NBN at pricing that is common across the region will provide a major boost to all sectors of the economy and to the quality of life in the Shire as well as improve safety of residents and visitors. There is a danger that the proposed implementation schedule will

increase the current technology gap between the Shire and adjacent metropolitan areas, further inhibiting the rate of bushfire recovery and our ability to attract new residents, businesses and investors.

Conclusion

Murrindindi Shire is a region boasting great opportunity but also faced with a number of challenges in terms of telecommunications service delivery (both broadband and mobile telephony).

From a business case perspective, it is topographically diverse and challenging; vulnerable to climatic events and natural disasters; lacking a major regional centre and large population base - all of which largely preclude the region from a commercial / market based solution.

However, its proximity to Melbourne, it's popularity as a lifestyle and visitor destination, its role in food production, and its emergency management challenges demand a priority rollout of NBN and greater investment in mobile phone infrastructure.

All current indications are that the NBN will not provide the solutions needed in a timely fashion. As is the case with all small rural Councils, developing viable solutions to the current communications challenges being experienced is beyond available resources. A regional approach is needed and State and Federal government support is imperative if flexible and cost effective options for quality communications outcomes are to be achieved.

Key priorities and actions for Murrindindi Shire

1. Gain priority in rollout timetable of the NBN
2. Investigate a regional communications solution to suit the topography and population spread
3. Prioritise improvement of black spots along key travel routes
4. Increase coverage and capacity by:
5. conducting an audit of all existing towers to establish ownership/control and developing arrangements to support improving access to towers/other relevant infrastructure
6. Identifying opportunities to share/lease infrastructure.

Should it be deemed appropriate as part of the Regional Telecommunications Review process, Murrindindi Shire Council representatives are more than willing to speak to this submission at a time to be arranged.