



Moorabool Community Broadband and Telecommunications Strategy

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Executive summary

PROJECT RATIONALE

Moorabool is seeking to be renowned as a special place to live and work and an attractive destination to visit. Achieving metropolitan equivalent information communication technologies (ICT) has been identified as a priority for future success.

The Moorabool Community Broadband and Telecommunications Strategy has reviewed ICT in the Moorabool region. It has examined factors such as current services, unmet demand for communications infrastructure, issues that inhibit the supply of services and whether demand and supply issues experienced in Moorabool Shire are unique or similar to other regions. Recommended actions to enhance future ICT access and adoption have been identified.

This report provides a summary of the results of research undertaken by Lateral Plains and the University of Ballarat Centre for eCommerce and Communication with support from the Moorabool Shire and Multimedia Victoria.

THE VISION

Metropolitan equivalent mobile connectivity and high-speed broadband communications are fundamental drivers for regional development and innovation. By 2015 the Moorabool Shire will achieve metropolitan equivalent ICT and be renowned for the effective use of new technologies.

GOALS AND OUTCOMES

The Moorabool ICT vision has been translated into four major areas, with each supported by a number of recommended programs and actions. Figure 1 illustrates the four suggested quadrants of the strategy, which have been formed and shaped in part by the commentary and feedback received from the Moorabool Community Broadband and Telecommunications Strategy sources, including the online surveys and information

derived from the case studies and in part formulated from the activity and discussion that has occurred since April 2009 surrounding the National Broadband Network (NBN) Initiative.



Figure 1 – Four quadrant ICT strategy

Strategies	Programs and actions
Internal Strategies: A leadership role for the Moorabool Shire	<ul style="list-style-type: none"> • Ensure all Councilors and Council Units provide ICT leadership • Ensure ICT is central to all new Council initiated and supported developments • Leverage ICT infrastructure to generate efficiencies in council processes and to achieve enhanced communication and engagement • Achieve higher levels of ICT integration by involving council staff in identifying and prioritising areas for service improvements • Create more effective web-based systems to support communication with businesses and the community • Educate residents and businesses so they can effectively use the systems council introduces • Provide resources and assist in attracting external funds to support programs and actions prioritised as an outcome of this study

Strategies	Programs and actions
Advocacy and profiling	<ul style="list-style-type: none"> • Establish Moorabool ICT to represent the interests of the local ICT community and oversee implementation of the priorities identified as an outcome of this study • Actively advocate and lobby to achieve an early rollout of the National Broadband Network (NBN) in the Central Highlands Region. • Clearly articulate ICT infrastructure priorities and advocate for enhanced mobile and broadband services to address service blackspots in the Moorabool Shire • Pursue partnerships with governments, telecommunications providers and others to ensure Moorabool achieves its strategic requirements for the delivery and maintenance of metropolitan equivalent infrastructure • In conjunction with Ballarat ICT Limited investigate the potential to achieve mobile and wireless broadband on all regional fast rail services.
Infrastructure and planning	<ul style="list-style-type: none"> • Use existing and new communication channels to increase ICT knowledge – Forums for developers, ICT service locator, ICT training and support initiatives, Broadband Watch, resident ICT survey and support information • Ensure all new residential and industrial developments are provisioned for an early NBN rollout (conduit strategy) • Be proactive in identifying retro-fitting opportunities, for example when Council is undertaking building redevelopments, constructing new roads or repairing footpaths • Develop an ICT investment incentive package having regard to concepts like tax and charge exemptions, provision of subsidised property, land and site identification and regulation and permit approvals advice and support • Explore feasibility of establishing an ICT Hub in the Moorabool Shire to complement and add value to the University of Ballarat Technology Park.

Strategies	Programs and actions
External strategies	<ul style="list-style-type: none">• Educate local businesses and the broader community about the benefits of positioning the Moorabool region as NBN ready• Actively participate in initiatives led by Municipal Association of Victoria and/or Multimedia Victoria which link to Moorabool's ICT priorities• Participate in the NBN Conference in Melbourne 4-5 March 2010 www.whittlesea.vic.gov.au/conference

Acknowledgments

Lateral Plains and the University of Ballarat's Centre for eCommerce and Communications thank the many individuals and organisations that have contributed to the development of *Moorabool ICT Strategy and Plan for the Future*. We recognise and acknowledge the support provided from more than 370 individuals during the study period:

- Moorabool Shire(12)
- Victorian Government - Multimedia Victoria (2)
- Municipal Association of Victoria (1)
- Communications and technology providers (5)
- Round table participants (10)
- Online survey respondents (332 as at 26 February 2010)
- Case study organisations (12)
- Telecommunications provider representatives (5)

Further details about the organisations and individuals that participated in the strategy's development are contained in Appendix 1.

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1. Context

1.1 LOCAL CONTEXT

The Moorabool Shire is located approximately 80 kilometres west of Melbourne. It abuts the Melton, Wyndham, Greater Geelong, Golden Plains, Ballarat, Hepburn and Macedon Ranges Local Government areas. The two main activity centres of the Shire are the townships of Bacchus Marsh and Ballan, which share the majority of the Shire's population. The major provincial centre Ballarat is 34kms to the west of Ballan.

The Shire is large and diverse. It covers 2,110 square kilometres with a population of approximately 27,000 and is experiencing significant growth. Bacchus Marsh is the predominant township of the Moorabool Shire, home to approximately 14,300 people and located approximately 45kms west of Melbourne. The town has experienced strong population, commercial and industry growth over recent years. The forecast change in population between 2010 and 2031 for the Moorabool Shire is a growth of 11,949 people with an average annual percentage change of 1.71 percent per annum.

Moorabool Shire is central to the main western transport corridor that runs between Melbourne and Adelaide, which provides for adequate road connections. The Ballarat-Melbourne Regional Fast rail also serves both Ballan and Bacchus Marsh. The 2006-07 State of the Regions report (National Economics) identifies Moorabool as the 'Most Sustainable Local Government Area' in the Central Highlands Region and is very well placed to continue its economic growth.

Encouraging and managing population growth is crucial to the success of the Shire and initiatives to achieve this are integrated in to both the Municipal Strategic Statement and the Growing Moorabool Economic Development Strategy and Action Plan April 2006. One of the difficulties faced by the Shire is that sixty-four percent of the working population currently leaves the Shire to work in Melbourne, Ballarat or Geelong.

The Shire Council has taken on a progressive policy, 'Live Work and Invest' in the Shire. The aspiration is to progress the Moorabool Shire's economy and population into one that is centred in the Shire itself.

There are many strands to this policy and the Moorabool Shire has acknowledged that integration of ICT at all levels will be critical. It is therefore part of the objective of this report to provide a snapshot of the current position of the Shire in regard to ICT. The report also outlines suggested policies and frameworks through which the Moorabool Shire can assist to close gaps and deficiencies and innovate in setting an environment for ICT integration which becomes embedded within all parts of the Shire; its demography, its infrastructure and its economy.

The Growing Moorabool Economic Development Strategy and Action Plan April 2006 identifies the need to lobby for the improvement of telecommunications specifically in relation to supporting industry, commerce and the home based business sector. Anecdotal evidence from residents, commerce and industry suggest that Moorabool is falling behind metropolitan Melbourne and the State in terms of ability to access broadband services. A community wellbeing report prepared by MapData Sciences Pty 2007 also reported on ICT deficiencies in the Moorabool Shire.

Overcoming broadband access issues at the local level and state level will contribute to greater economic prosperity, health and well-being of communities as well as retention of commerce and industry. In the particular case of Moorabool Shire, growing demand for both residential and industrial land requires that broadband infrastructure development keeps pace with that demand.

Key Challenges in the local context

1. The objective of making the Shire more attractive for people to live and work locally is dependent on making sure that key services and facilities are available and are of a good standard. These services include health, education, good living environs and estates and good utilities and infrastructure. In terms of the latter this now includes good communications and broadband access.
2. The Shire Council's core business does not (and should not) include that of being a telecommunications provider to its population, nor being an internet service provider.
3. There is as yet an unclosed cultural/generation gap within the business and wider community in terms of skills and integration. Training and awareness of online tools and systems and their benefits are an important but an understated parts of ensuring

effective take-up and utilisation. This challenge is slightly more significant in regional and rural areas.

1.2 NATIONAL AND STATE CONTEXT

1.2.1 National

The national context is critical as the Australian Government has constitutional responsibility for telecommunications regulation and has also traditionally been responsible for telecommunications infrastructure provision. In a free market environment that responsibility for infrastructure provision has changed; however the Australian Government still provides programs designed to overcome areas of market failure. State Governments have also started to be more active in the area of telecommunications infrastructure provision.

During April 2009, the Australian Government launched its *21st Century Broadband* policy to invest \$43 billion to build and operate a National Broadband Network (NBN). It is planned that the NBN will rollout fibre to the premises (FTTP) to 90 percent of the Australian population over the next 8 years with the remainder of the population to be served by wireless and satellite services.

In addition to the establishment of an independent network other policy announcements included the \$250 million Regional Broadband Blackspot Program to fund the rollout of competitive fibre optic backhaul infrastructure in regional areas. This program has selected infrastructure routes across Australia where there is no competitive provision of fibre backhaul and undertaken a tender process to provide alternative backhaul along those routes. In Victoria these routes are through South Gippsland and in northern Victoria and will not directly affect Moorabool.

A further aspect of this national policy is the mandating of FTTP in all new estates after 1 July 2010. This has significant implications for local government as planning provisions will need to be changed to enable the mandating of FTTP.

Key Challenges in the National context

The national policy context provides both opportunities and potential risks which need to be considered as part of the *Moorabool Community Broadband and Telecommunications Strategy*:

1. While the NBN is expected to be rolled-out, simultaneously, in metropolitan, regional, and rural areas some regions will inevitably receive services earlier than others.
2. The Moorabool Shire has many towns with a population of less than 1,000. Confirming the arrangements that will be in place to service populations outside the 90 percent NBN rollout will be of key interest to local communities and potential residents.
3. Implications for developers and for local government as a result of changes to service arrangements for the provision of telecommunication infrastructure in new estates will need to be fully understood and accommodated.
4. Whilst the NBN is a significant step forward nationally, there is some level of uncertainty regarding how and when it may be implemented. Clear forward planning in relation to accommodating the NBN rollout is critical for the Moorabool region.

1.2.2 State

The Victorian State Government, through The *Victorian Broadband Framework* (April 2005) states clearly that equitable access to broadband infrastructure and effective usage of that infrastructure is vital for both economic development and social inclusion in regional Victoria. A number of programs have been made available by the Victorian Government to enable Victoria to meet this aim. These programs include:

- Building on the AARNet network by connecting Universities and their various campuses fibre optic cable in Victoria through the Victorian Education and Research Network
- Providing \$20m for the TAFE Broadband project to enable all the TAFE institutes in Victoria to join an a collaborative broadband network
- Providing fibre optic broadband to schools through the \$89 million VicSmart program and implementing Ultranet, a \$60.5 million statewide online teaching and learning system for government schools

- Providing excess capacity on the Regional Fast Rail fibre optic network
- The \$15m Collaborative Internet Innovation Fund (cIIF) which fosters innovative usage of web based technologies (Round One) and will look at applications which drive usage of high capacity broadband (Round Two).
- Providing \$20 million for the VicFibre Links program which is designed to improve access to competitive fibre backhaul.
- Continued support through Regional Development Victoria of key ICT based developments in regional Victoria.

Key Challenges in the State context

1. The Shire being in a position to take advantage of any programs delivered by the State.
2. Positioning the Shire in line with State ICT policies and strategies.
3. Ensuring good coordination between State and Federal initiatives as they impact on the region, to gain optimal advantage.
4. Identifying funding opportunities to support ICT initiatives which are capable of generating economic development and social inclusion benefits for the Moorabool Shire and for local businesses and communities.

2. Moorabool Community Broadband and Telecommunications Strategy

2.1 PROJECT BRIEF

Lateral Plains and the Centre for eCommerce and Communication were engaged by the Moorabool Shire and Multimedia Victoria to review ICT in the Moorabool region. The objectives of the study included:

- Providing an assessment of demand for communications infrastructure to a standard equivalent to that enjoyed by metropolitan Melbourne.
- In assessing demand, particular attention was to be given to the pent up demand for services that require metropolitan equivalent communication infrastructure.
- Examining issues that inhibit the supplying of services to meet demand.
- Recommending actions to overcome the issues identified and future proofing for commerce, industry and residential.

2.2 PROJECT METHODOLOGY

The research underpinning the strategy development involved developing an understanding of a number of critical aspects that are implicit in the task of planning for the future. These included:

- Understanding the desires and intentions of the community and stakeholders.
- Understanding the social, business and ICT context sufficiently to determine what goals are reasonable, given the desires and intentions.
- Setting the goals
- Determining what needs to be done to achieve these goals.

The approach taken in this instance was to undertake:

- Consultation - both wide ranging and intensive consultation with the community and stakeholders.
- Obtain expert opinion through meetings with government representatives (national, state and local) and with telecommunications specialists.

- Gather data on ICT and ICT business performance at the regional level and analyse this data to provide a sound context and insight for moving forward.
- Explore opportunities that connect well with the plausible ICT and business development directions and the aspirations of stakeholders.

2.3 PROJECT WEBSITE

At the outset of the Moorabool ICT project, background information, details of the consultation approach, information about the Moorabool ICT survey and project team were published and seamlessly integrated with the Moorabool Live Work and Invest website at www.moorabool.com.au.

The project website has been used as reference point to support engagement and to disseminate information throughout the project period.

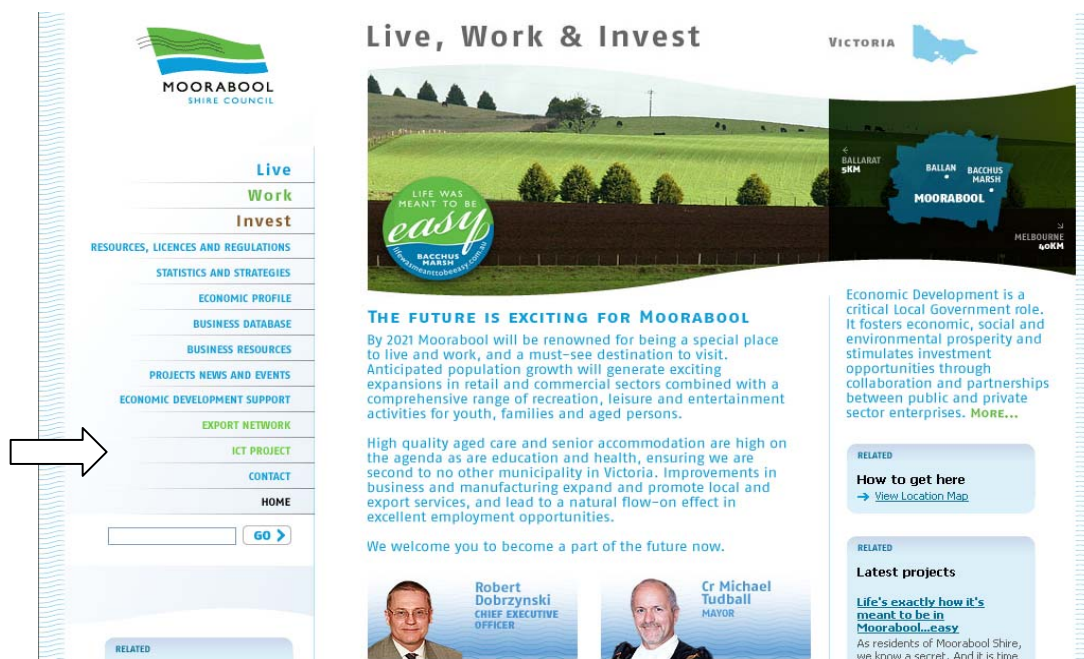


Figure 2 – ICT project link on www.moorabool.com.au

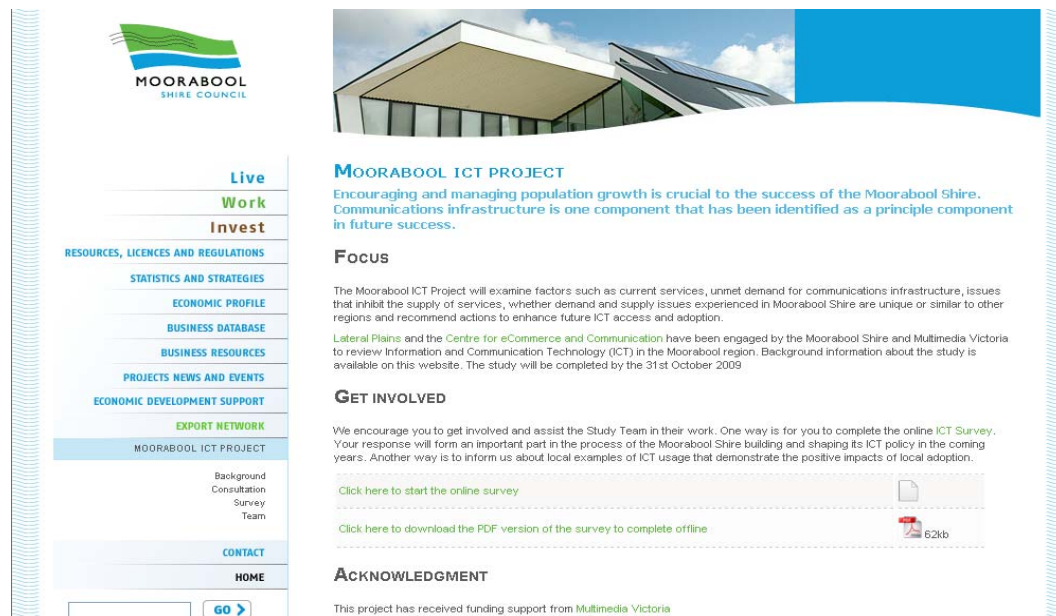


Figure 3 – Moorabool ICT project website <http://moorabool.cecc.com.au>

2.4 STUDY PARTS

Research which underpinned the Moorabool Community Broadband and Telecommunications Strategy was undertaken in a number of parts. These included:

- **Desktop research** to map ICT infrastructure in the Moorabool Shire and to prepare the draft conduit strategy
- **Consultation** with government representatives and with telecommunications specialists to assist in understanding the national, state and local ICT context
- **Round table discussions** with representatives from the health, education, business and community sectors
- **Telephone and face-to-face interviews** with businesses as a prerequisite to preparing case studies to illustrate how broadband and mobile technologies are being adopted and to identify any challenges which are being encountered.
- **Online survey** to gather an evidence base to support planning and development at both the local and regional level.

2.5 STUDY OUTPUTS

Outputs from the Moorabool Community Broadband and Telecommunications Strategy include:

- **Moorabool ICT Project Website** which was used as reference point to support engagement and to disseminate information throughout the project period.
- **Draft Conduit Strategy** to support the Moorabool Shire in assisting developers of new/greenfield estates in ensuring that their developments are capable of accommodating an optical fibre rollout.
- **Moorabool Infrastructure Summary** which provides an overview of ICT infrastructure in the Moorabool Shire and includes infrastructure maps.
- **Moorabool ICT Consultation Summary** provides detailed notes from project consultations and the round table discussions.
- **Moorabool ICT Case Studies** detail the ICT outcomes for 12 local organisations with representation spanning the ICT, education, health, environment, agriculture, transport and community sectors.
- **Moorabool ICT Survey Results** summarises the outcomes of the survey which was conducted during the September to November 2009 period during which a total of 239 valid responses were received.

Figure 4 – Telstra exchanges and mobile towers

The majority of telecommunications infrastructure in the Moorabool Shire are exchanges owned and operated by Telstra (all of which are backboneed by optic fibre) with last mile infrastructure being provisioned by copper.

Figure 4 confirms a notable concentration of Telstra telecommunications infrastructure shadowing the Western Highway. As far as broadband access is concerned, ADSL and variants thereof predominate across the Shire. From the online surveys conducted, the density of ADSL connections reflects the location of exchanges both within the major urban areas of the Shire and locations along highways of which the Western Highway is the most significant.

Figure 4 also highlights potential gaps in infrastructure in some of the more sparsely populated areas of the Shire. These same areas have geographical diversity in relation to the terrain. The challenges of sparse population and relatively challenging terrain may have provided disincentives to telecommunications providers to investing in infrastructure and services in those areas.

The main exchanges in the Shire are in Bacchus Marsh and Ballan. Both exchanges are ADSL2+ enabled. The Bacchus Marsh exchange services most of the Bacchus Marsh area including the area of Darley. The distance to Darley from the exchange is significant and from anecdotal information, there are areas on the north side of Darley where ADSL access is either poor or not available. The other exchanges in the Shire that are equipped to provide ADSL2+ are the Blackwood, Elaine, Gordon, Wallace, Yendon. All other ADSL capable exchanges are at the time of writing, ADSL1 capable.

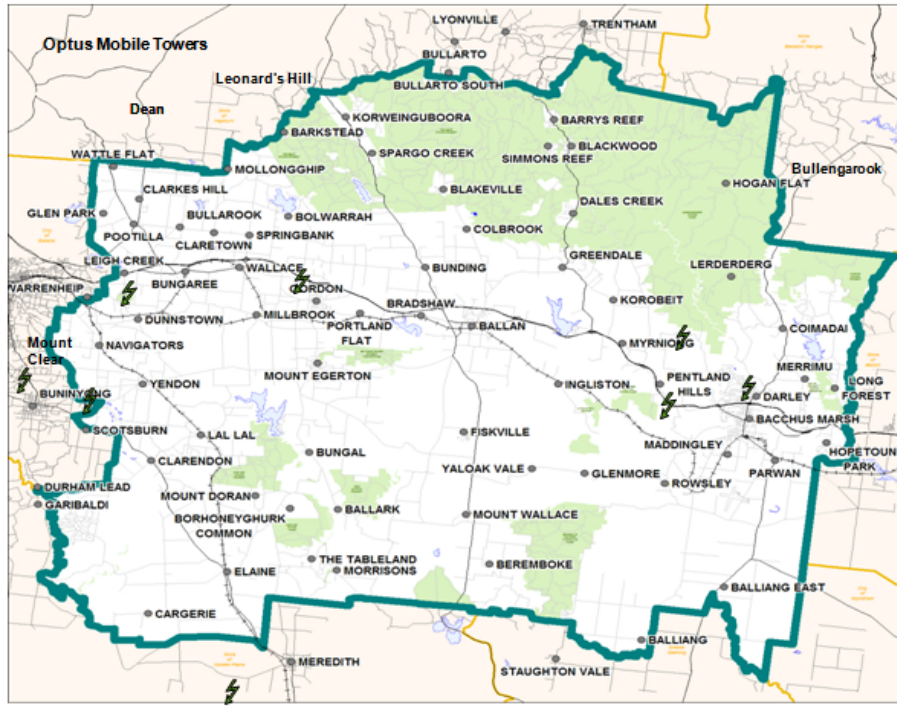


Figure 5 – Optus mobile towers

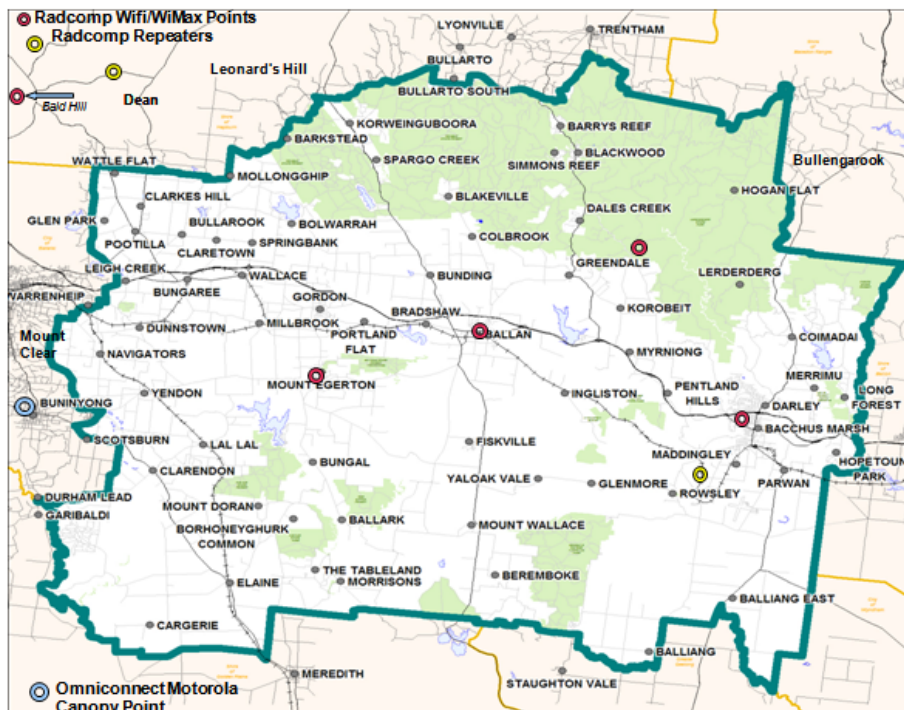


Figure 6 – RadComp and Omnicomnect Motorola infrastructure

There is a mix of wireless infrastructure across the Moorabool Shire. The predominant provision is the Telstra's NextG network both in terms of number of physical points and possibly in terms of coverage. Optus also has coverage concentrated on the Western Highway. Typically, these systems provide a combination of voice and data services.

RadComp Computers, based in Ballan, also provides wireless broadband services across the Moorabool Shire, mostly by 802.11.x (more commonly known as WiFi) and a Wimax system servicing the Bacchus Marsh area.

There are also a series of satellite broadband providers who have the capability of providing broadband access into all areas of the Moorabool Shire at some level. Figure 7 provides a consolidated view of telecommunications infrastructure that was identified throughout the course of this study.

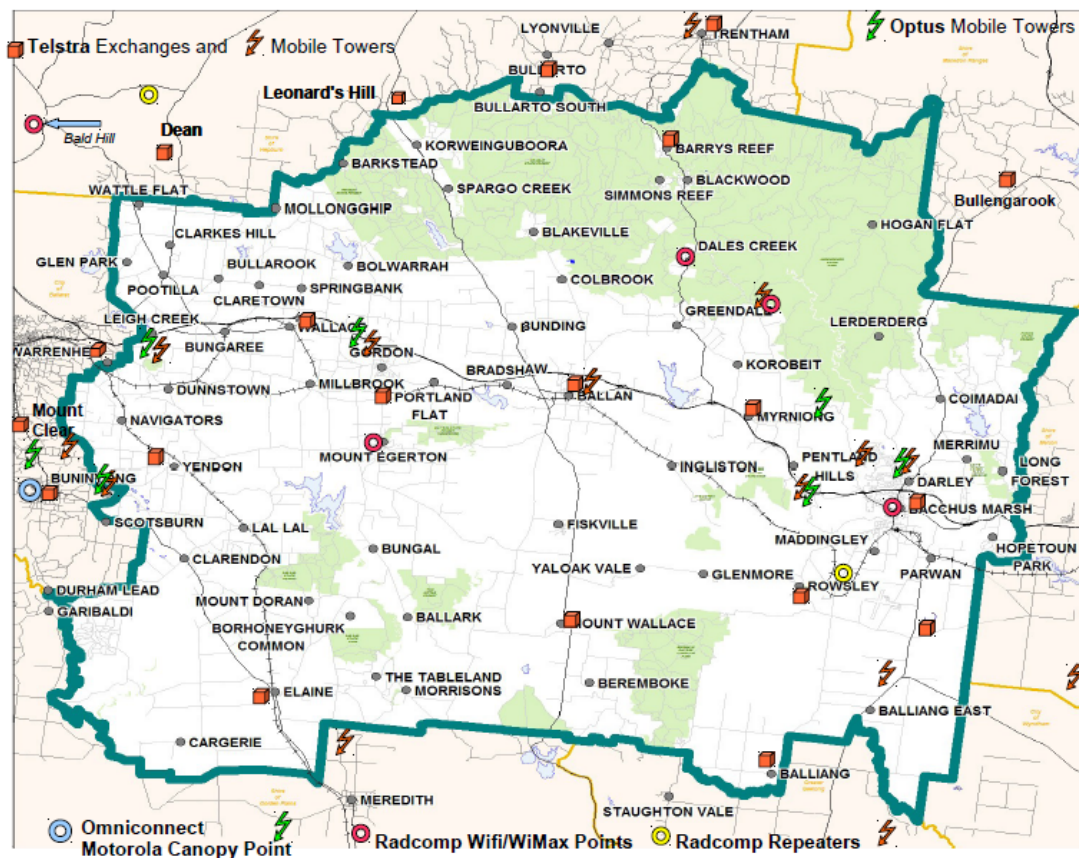


Figure 7 – Consolidated view of telecommunications infrastructure

3.2 CONSULTATIONS

The Project Team led an extensive consultation process to engage key stakeholders, Federal, State and Local Government representatives, local businesses, established networks, ICT firms, telecommunications providers and members of the broader community in examining important trends, uncertainties and linkages to the future development and growth of the Moorabool Shire. Specific activities included regular communication through the local media, desktop research, a web-based survey, face-to-face interviews, roundtable events and project briefings. More than 350 individuals were directly engaged in considering the future through the study activities, with the Moorabool Economic Development website (www.moorabool.com.au) utilised as a key mechanism for information dissemination collection and collation.

This section summarises the key findings of that consultation. Factors such as current services; unmet demand for communications infrastructure; issues that inhibit the supply of services; whether demand and supply issues experienced in Moorabool Shire are unique or similar to other regional or peri-urban areas were all examined.

Community

1. Internet and mobile communications technologies are increasingly a primary process in both regular family communications and relationships and a sense of being connected to community activities and events, and essential services.
2. A lack of adequate communications and Internet/broadband infrastructure is increasingly seen to be an inhibiting factor in relation to new residents settling in the more sparsely populated areas of the Shire. There has been a perception, amongst new residents of these areas especially, that the infrastructure “would just be there”.
3. In terms of existing residents of more sparsely populated areas, these issues are becoming inhibiting factors for the growth of the community both in terms of numbers and in terms of viability of lifestyle and in respect of carrying out work/business in these areas.
4. A number of residents have linked priorities for improvements in mobile coverage to enhanced safety in the event of an emergency such as a bushfire.

Business

1. The majority of businesses across the Shire in all sectors utilise mobile communications and Internet/broadband technologies at some level within their business operations and practices.
2. Numerous businesses have expressed that utilising communications and Internet/broadband technologies within the Shire as challenging at times and that has led to a conservative approach to the adoption and further integration of the same within their business operations.
3. There are some examples of unique innovation and application of ICT technologies within the business demographic of the Shire. From these examples there is evidence that other such companies could potentially move to the Shire to do likewise or expand operations within the Shire if there was adequate and appropriate infrastructure to support the same.

4. There is evidence that the decisions of businesses to prospectively locate or relocate in the Shire are increasingly influenced by the location of communications and Internet/broadband technologies.
5. Many businesses have acknowledged the value, even in respect of local markets, of having an online presence on the Internet, but feel that they do not know enough about doing this effectively and maintaining the same.
6. Many businesses are unsure of the Council's role in improving ICT infrastructure and integration but believe that it has a role in this respect. There appears to be no one other entity within the Shire that has been able to provide a leadership or championship role.

ICT Infrastructure

1. The Moorabool Shire continues to be faced with a series of challenges in relation to both its terrain and its population distribution. Whilst the Shire is growing, there is evidence that clearly indicates that residents and businesses feel they are being held back as a result of ICT infrastructure that is not keeping pace, neither in respect of capacity or coverage. The lack is perceived by many to be an inhibiting factor in the growth of the Shire.
2. The established ICT and telecommunications providers of Shire wide infrastructure have found it economically difficult to provide coverage across the Shire to the point where numerous areas away from the major towns and away from the Western highway struggle to obtain even basic mobile and broadband coverage.
3. There are small providers and infrastructure operators who have either extended their coverage to many parts of the Shire not well covered or who have explored the prospects of doing so in recent months. One locally based operation in particular has the potential capability to assist with the elimination of some broadband blackspots. A higher profile of such operations would assist communities who might benefit from such coverage to leverage the same.
4. There is evidence that most communities and businesses, as well as the Council itself, stand to benefit significantly from an early rollout in respect of the National Broadband Network initiative.

5. The Moorabool Shire Council has a clear and pivotal role in the shaping of policies and initiatives that assist and facilitate in both the rollout and uptake of new broadband and communications initiatives in the Shire region.

ICT benefits

Despite significant infrastructure challenges, there are numerous good examples of local organisations moving ahead with ICT. The case study summaries bellow, illustrate how regionally-based organisations are generating economic and social advantages enabled by the availability of high speed Internet.

Aus Eco Solution's web-based system will supply staff with job packs, support submission of daily reports, record personnel locations and log time sheets with key benefits including time savings and reduced double handling of administration information. This business is also exploring GIS systems to support team members in updating maps to highlight environmental works undertaken.

Bacchus Marsh Grammar's high speed 10mb fibre connection is generating benefits through greater access to education resources, curriculum materials, networking and professional development opportunities. Students are communicating and collaborating online with their sister schools in Japan and France. Software upgrades and virus protection are significantly easier to manage. With faster broadband speeds Bacchus Marsh Grammar is also able to consider moving some core IT services back in-house.

From sowing to harvest, packing to delivery, ICT plays a role in every aspect of the regional production of **BM Fresh** premium lettuce products. Sophisticated technologies support customers in tracking the BM Fresh product from seed to delivery. Global positioning systems have been installed on tractors to allow accurate row positing for planting, electronic systems are being utilised to program irrigation and web-based fulfilment systems are being used to process orders. By redeveloping its website BM Fresh hope to better engage with end customers and provide them with insight into the business and its products.

Colour Vision Systems manufacture fruit sorting and packing equipment which is housed in more than 200 facilities across the globe. Innovation has ensured CVS stay ahead of its competition. Cheaper processing power and faster speeds have enable CSV to extend the

capabilities of their products. With more than 90 percent of its customers a plane ride away the companies ICT network is critical to how CSV does business today. CSV can configure, monitor and repair customer systems remotely. Speed of problem resolution is the greatest benefit with problems solved in half an hour of remote access, rather than paying for a technician to travel thousands of kilometres.

Djerriwarrh Health's ICT networks are critical to staff carrying out their daily functions. Staff simply can't fulfil their role without reliable connectivity. When failures occur they are both costly and detrimental to service provision. Greater and more consistent bandwidth increases the efficiency of ICT systems. VoIP and video-conference have contributed value and generated financial savings in terms of time and travel. Many Djerriwarrh Health employees live considerable distance from their place of work. There is a trend for a more 'extended workplace' in which staff can undertake work online. Where staff don't have access to quality broadband the arrangement would be untenable.

Don Watson Transport vehicles are constantly tracked via GPS and fitted with temperature monitoring equipment. As a result the business is achieving higher quality standards, better managing risk and building market share as client expectations are met. A virtual private network is used to support communication between Don Watson Transport's three major warehouses. Site-to-site communication via VoIP has brought significant financial benefits to the business. The company's new website will provide business information and enhance the company image.

Gordon Primary School teachers are facilitating learning through new technologies that excite and engage children. Students are interacting safely with their peers in cyberspace through participation in Super Clubs Plus. The Victorian Government netbook trial is providing new opportunities for Grade 5 students. Interactive white boards are used to support learning, student displays and staff meetings. Other peripherals including digital cameras, colour printers and scanners are being used to support student learning. A new user friendly website is currently in development.

Lake Imaging has made capital investments in wireless communications infrastructure that spans much of Southern and Western Victoria to support its radiology and health imaging services.

Mike Stephens and Associates have been early adopters of internet technologies. Rural ICT projects have included radio frequency identification (RFID) for tagging livestock and the development of computer-based farm management and accounting system. A stable internet platform from which to communicate is now a key business requirement. Better and more reliable connectivity is required to support virtual meetings and video conferencing.

4. Strategies to address the findings

4.1 MOORABOOL ICT VISION

Metropolitan equivalent mobile connectivity and high-speed broadband communications are fundamental drivers for regional development and innovation. By 2015 the Moorabool Shire will achieve metropolitan equivalent ICT and be renowned for the effective use of new technologies.

4.2 PRIORITY THEMES FOR MOORABOOL ICT

The Moorabool ICT vision has been translated into four major areas, with each supported by a number of recommended programs and actions. Figure 1 illustrates the four suggested quadrants of the strategy, which have been formed and shaped in part by the commentary and feedback received from the Moorabool Community Broadband and Telecommunications Strategy sources, including the online surveys and information derived from the case studies. It is also in part formulated from the activity and discussion that has occurred since April 2009 surrounding the National Broadband Network (NBN) Initiative.



Figure 8 – Four quadrant ICT strategy

4.3 MOORABOOL SHIRE LEADERSHIP

The first priority theme identified is the leadership role that the Moorabool Shire can have through rethinking some of its internal strategies and processes. Section 2 in Appendix 6 *Explanatory Notes for ICT Actions & Strategies* provides a more detailed explanation of the Moorabool Shire's role. Specific recommendations in this area include:

- Ensure all Councillors and Council Units provide ICT leadership
- Ensure ICT is central to all new Council initiated and supported developments
- Leverage ICT infrastructure to generate efficiencies in council processes and to achieve enhanced communication and engagement
- Achieve higher levels of ICT integration by involving council staff in identifying and prioritising areas for service improvements
- Create more effective web-based systems to support communication with businesses and the community
- Educate residents and businesses so they can effectively use the systems council introduces
- Provide resources and assist in attracting external funds to support programs and actions prioritised as a result of this study

4.4 REGIONAL ADVOCACY AND PROFILING

ICT is a critical requirement in the live, work and invest equation. Regions must be able to provide residents and businesses with reliable, affordable mobile and hi-speed broadband services. Regional advocacy and profiling will be critical to improving ICT adoption and effective use in Moorabool Shire. Specific recommendations in this area include:

- Establishing Moorabool ICT to represent the interests of the local ICT community and to oversee implementation of the *Moorabool Community Broadband and Telecommunications Strategy* (See Appendix 6, Section 2.7)
- Actively advocating and lobbying to achieve an early rollout of the National Broadband Network (NBN) in the Central Highlands Region.

- Clearly articulating ICT infrastructure priorities and advocating for enhanced mobile and broadband services to address service blackspots in the Moorabool Shire (See Appendix 3, Section 2 *Infrastructure Mapping*. The Moorabool ICT survey results confirm priority locations for enhanced mobile services include Darley, Blackwood, Greendale, Ballan and Dales Creek (See Appendix 6).
- Pursuing partnerships with governments, telecommunications providers and others to ensure Moorabool achieves its strategic requirements for the delivery and maintenance of metropolitan equivalent infrastructure
- In conjunction with Ballarat ICT Limited investigating the potential to achieve mobile and wireless broadband on all regional fast rail services.

4.5 INFRASTRUCTURE AND PLANNING

Infrastructure and planning will be critical to improving ICT adoption and effective use in Moorabool Shire. Strategies in this area may include changes to local government planning regulations, setting aside of land for telecommunication infrastructure or the launch of services which support the monitoring of broadband availability and identification of service gaps which may be addressed through demand aggregation. Specific recommendations in this area include:

- Using existing and new communication channels to increase ICT knowledge – Forums for developers, ICT service locator, ICT training and support initiatives, Broadband Watch, resident ICT survey and support information
- Ensuring all new residential and industrial developments are provisioned for an early NBN rollout (conduit strategy)
- Being proactive in identifying retro-fitting opportunities, for example when Council is undertaking building redevelopments or constructing new roads or repairing footpaths
- Developing an ICT investment incentive package having regard to concepts like tax and charge exemptions, provision of subsidised property, land and site identification and regulation and permit approvals advice and support
- Exploring the feasibility of establishing an ICT Hub in the Moorabool Shire to complement and add value to the University of Ballarat Technology Park.

4.6 EXTERNAL STRATEGIES

Working together to identify opportunities for producing competitive advantages through widespread adoption of ICT will also be influenced by the success of external strategies. Specific recommendations in this area include:

- Educating local businesses and the broader community about the benefits of positioning the Moorabool region as NBN ready
- Actively participating in initiatives led by Municipal Association of Victoria and/or Multimedia Victoria which link to Moorabool's ICT priorities

5. Next steps

5.1 ENSURING COMMUNITY OWNERSHIP

The Moorabool Community Broadband and Telecommunications Strategy incorporates a medium term plan that provides a framework for coordinated leadership, planning and investment. Through a mix of mobilising disparate resources, promoting collaboration, identifying trends and initiating action, the region can make significant ICT progress.

The first stage is about Moorabool Shire planning and leadership. This involves the creation of a coherent internal ICT vision that will ensure Council leverage ICT infrastructure to generate efficiencies in processes and achieve enhanced communication and engagement. The second and parallel stage has a number of dimensions which include:

- Establishing Moorabool ICT to represent the interests of the local ICT community and to oversee implementation of the *Moorabool Community Broadband and Telecommunications Strategy*
- Actively advocating and lobbying to achieve an early rollout of the National Broadband Network (NBN) in the Central Highlands Region
- Setting up new systems to support regional advocacy and profiling activities
- Attracting local and external funds to support programs and actions prioritised as an outcome of this study

The *Moorabool Community Broadband and Telecommunications Strategy* objectives have been scoped at a level that is sufficiently broad and enduring to guide implementation efforts on a variety of fronts over the next three years. While the strategy does not have specific implementation funds attached to it, it is the Moorabool Shire's intention to use it as a key reference point for attracting resources to support projects and/or programs that align with the strategy objectives.

Implementation initiatives will be progressively developed with the Moorabool Shire taking leadership in some cases and Moorabool ICT being a key advocate for others. Other partners will be recruited as necessary and may include government, non-government and private sector representatives. Separate implementation plans should be developed for each initiative so objectives, milestones and key performance indicators of the initiatives can be monitored for progress and outcomes on a period basis.

Appendix 1 – Consultation process

The Project Team undertook a broad range of consultation in producing this ICT Strategy for the Moorabool region in the period between April and October 2009.

Roundtables

Five roundtables were held throughout the consultation period. These included:

- 29th April 2009 Session 1 Moorabool Shire Community Development Department
- 29th April 2009 Session 2 Moorabool Shire Planning & Tourism Department
- 29th April 2009 Session 3 Moorabool Shire Organisation & Strategic Department.
- 22nd June 2009 Session 1 Health and Education Stakeholders
- 22nd June 2009 Session 2 Small Business, Retail & Community Stakeholders

Briefings

A number of briefings were provided during the consultation period. These included:

- Robert Dobrzynski CEO Moorabool Shire
- Catherine King MP Federal Member of Parliament
- Senator Stephen Conroy Minister for Broadband, Communications and the Digital Economy
- Multimedia Victoria State Government representatives
- Telecommunications Sector Representatives from Telecommunications Sector, including Telstra & Private telecommunication companies.
- Brad Winter City of Whittlesea
- Tony Gibbs Municipal Association of Victoria
- Mingara Services Representatives from Mingara Services

Online survey

Local individuals and organisations were able to provide feedback and input via an online surveys delivered via the Moorabool Live Work Invest website during the consultation period. The opportunity to participate in the survey was promoted through direct email, flyers to schools, at Bacchus Marsh and Ballan Railway stations, notices on Moorabool websites, media releases and via community groups

Conduit policy

A number of face-to-face meetings and telephone consultations were undertaken as part of the process of preparing the Draft Conduit Policy for the Moorabool Shire. The draft policy was distributed to relevant internal Council departments for feedback. Collated feedback was subsequently received. This incorporated comments from statutory planning, engineering, assets, strategic planning, economic development and information technology. The Draft Conduit Policy is included in the appendices to this report.

Participants

Individuals and organisations that contributed through the consultation process included:

Moorabool ICT Working Group

Chris Parkinson	Moorabool Shire Manager Information Services
Mark Roberts	Moorabool Shire Previous Manager Economic Development
Peter Ziebell	Regional Development Victoria
George Fong	Lateral Plains
Barbara Fong	Lateral Plains
Helen Thompson	Centre for eCommerce and Communications

Moorabool ICT Round Table Participants

Sandy McClintock	Tim Grosvenor
Colin Leggatt	Peter Whitefield
Peter Harrison	Eric Sharkey

Moorabool Shire

Troy Scoble	Kate Diamond-Keith
Neil Manning	Leann Brown
Leigh McCallum	Jade Brain
Michael McCarthy	Jeanette Spittle
Leanne Wilson	Cyana Lopez Matta

Federal, State and Local Government

Senator Stephen Conroy	Minister for Broadband, Communications and the Digital Economy
Catherine King MP	Federal Member for Ballarat
Tony Gibbs	Municipal Association of Victoria
Martin Doddrell	Department of Innovation, Industry and Regional Development
Brad Winter	City of Whittlesea

Individuals who participated in interviews

Kerrie Guppy	Aus Eco Solutions
Luke Robertson	Bacchus Marsh Grammar
Carmel Ruffo	BM Fresh / Tripod Farmers
Ken Hockey	Colour Vision
Colin Leggatt	Djerriwarrh Health Services
Adam	Don Watson Transport
Patrick Bonello	Gennesis FX / Websites Now
Dawn Vassallo	Gordon Primary School
John Livingston	Lake Imaging
David Rowley	Mt Egerton Community Development Association
Mike Stephens	Mike Stephens & Associates
Peter Whitefield	Peter Whitefield Consulting

Other organisations

Digital River
Mingara Services
RadComp
Telstra
Westconnect

Appendix 2 – Moorabool ICT firms

Business Sector and Name

Retail

Westconnect Technologies T/A Leading Edge Computers
RadComp

Internet Service Provision

Bungaree Store & Local Post Office – Internet Café
CAD Technology
RadComp
Westconnect Technologies T/A Leading Edge Computers

Graphic Designers

Actual Website Services
AG Photography & Design
Genesis FX / Websites Now
Marmoset
Print and Copy
RG Web Design
Web Designs for You

Computer servicing and repairs

Sage Creek Computers
Digit Computer Services

Online publishing and software development

Community Imprints
MPS Consultancy