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Regional Development
Regional Development Australia and Regional Development Victoria
LODDON MALLEE

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Committee Secretary
House of Representatives Standing Committee on
Infrastructure and Communications
PO Box 6021 Parliament House
CANBERRA ACT 2600

Dear Sir / Madam

SUBMISSION: ***Inquiry into the National Broadband Network***

We are pleased to present this submission to the *Inquiry into the National Broadband Network* on behalf of the Loddon Mallee Regional Development Australia (RDA) committee.

The Loddon Mallee RDA is very supportive of the National Broadband Network (NBN) roll out in the Loddon Mallee region, recognising the benefits better telecommunications infrastructure will bring to our communities.

The Loddon Mallee region has been significantly affected by recent floods, which followed long term drought, and it is possible that further localised detrimental affects to business and communities could flow from the introduction of the Murray-Darling Basin Plan.

The committee strongly supports an accelerated roll out of the NBN in the Loddon Mallee region to potentially provide opportunities to offset some of these adverse affects and to diversify and strengthen local economies and communities. We are aware that the City of Greater Bendigo council, in particular, and business leaders across the region share the same view.

In late 2010, all five non-metropolitan regions across Victoria released individual Regional Strategic Plans (RSP's). These RSP's have been developed in consultation with local, state and federal government, business and the broader community. The Loddon Mallee RSP's outline key priorities for the regions and have been endorsed by the RDA Committee, as well as the ten Council's in the Region and are available for viewing and down loading at:
www.rdv.vic.gov.au/victorian-regions/loddon-mallee-outlook

Specific actions that fall under **Strategic Direction 4 – 'Improve our infrastructure'** include Improve broadband access, take up and telecommunications infrastructure across the region to improve accessibility; Use broadband connectivity to enhance access to services and address labour shortages/skill gaps with a focus on the health and education sectors; and Advocate to the National Broadband Network to broaden regional broadband connections to support connectivity and promote economic opportunities for small towns.

These actions directly target utilising the NBN to improve 'economic growth and employment opportunities' and 'facilitating community and social benefits' in our region.

Further to this the RDA committee is looking to initiate and fund further research to justify accelerated rollout and to encourage greater take up of applications of broadband to **'Strengthen our settlements and communities, especially our small towns' (Strategic Direction 2) and 'Strengthen and diversify our economy' (Strategic Direction 3).** These Strategic Directions are common to both the North and South RSP's and there are specific actions within them that include identifying NBN-ready projects and programs to inform business and the community on the benefits of the NBN and to encourage greater take up and business application when available.

In mid 2010 the RDA committee had a briefing with three telecommunications industry leaders which highlighted the potential for a lack of take up of broadband services in certain areas and a possible skill shortage issue in rolling out the network itself.

Attached to this letter is a summary of the Telecommunications Spend and Demand in Victoria, a report produced by Access Economics Pty Ltd for DIIRD. This summary uses information taken directly from the report.

The main points from this summary to be conveyed are:

- The Loddon Mallee region face challenges in more advanced telecommunications services being made available in the less populated and more remote areas, although this is not dissimilar to other Victorian regions.

- Take up of services is, and will be, affected by age, income, employment and education. LGA's within Loddon Mallee face challenges in some of these categories.

- The affluence of the population has been found to be a factor driving demand for telecommunications services. Take up of services could be affected as large parts of Loddon Mallee are in the lowest two brackets of household income (in 2006 – up to $800 per week).

Should you wish to discuss any points raised in this letter in more detail, please feel free to contact me on

Yours sincerely,

Richard Milne
Executive Officer

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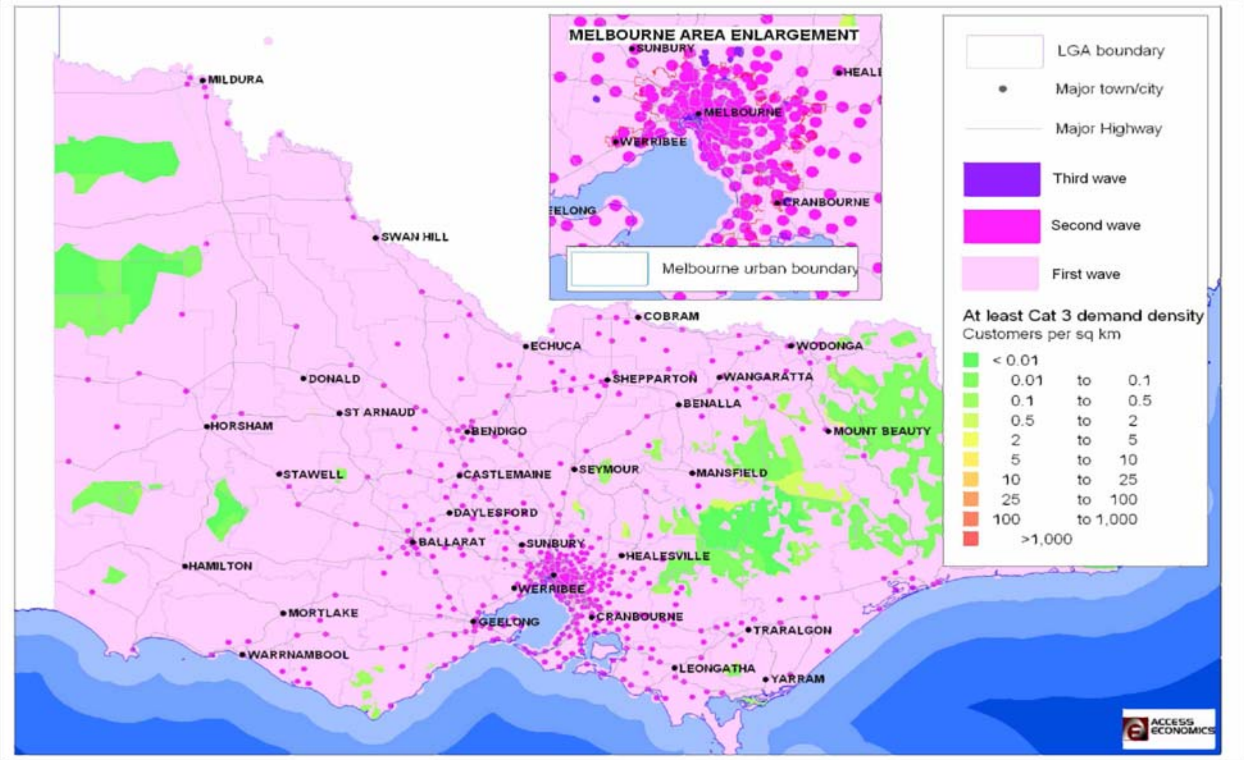
Telecommunications Spend and Demand in Victoria
- Summary of report specific to Loddon Mallee

Full report available at:
http://www.mmv.vic.gov.au/Assets/2473/1/TelecommunicationsspenddemandreportJune2010.pdf

Broadband supply
Based on this report, it appears that the Loddon Mallee region face challenges in more advanced telecommunications services being made available in the less populated and more remote areas. Geographical spread, population density and population growth all affect the technologies that can be made available, so other regions will be in a similar situation. Victoria currently has approximately 70% coverage of 2nd wave broadband, which is available in most regional towns and cities of over 200 people. **Figure 5.7 (page 69) is not detailed enough to indicate any major differences in coverage of this technology between Loddon Mallee and other regions.**

Figure 5.7

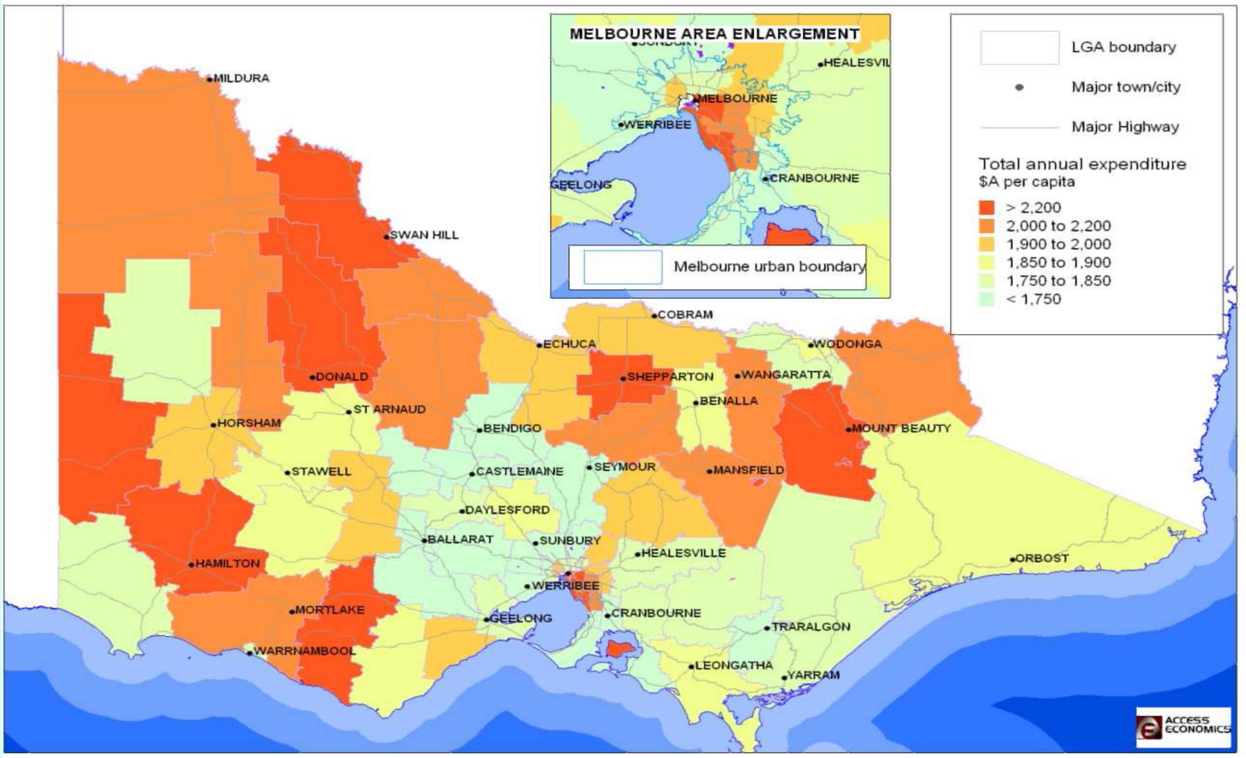


Take up of services
Take up of services is, and will be, affected by age, income, employment and education. LGA's within Loddon Mallee face challenges in some of these categories. Table 5.6 (page 59) indicates that, excluding Metropolitan, **Loddon Mallee has the 2nd highest number of customers in all individual categories except satellite**. Take up of services by business can also be affected by high percentage of industry type within LGA's, including agriculture and construction. Again, some LGA's within Loddon Mallee fall into these categories with **Buloke (62.2%) and Loddon (67.8%) among eight across the state with agricultural industry higher than 60%** - refer Table 3.2 (page 26).

Annual average expenditure per capita
Areas in the north of the region access satellite for some services, which is one factor that increases expenditure. **Expenditure shown in Figure 5.6 indicates Loddon Mallee is consistent with other regions** (page 3 of this summary, page 64 of report). Aside from the accessibility of competitive offerings, other factors that contribute to the price paid for broadband include the speed, service level and down load limits. **Some areas in central Victorian rank among the lowest per capita expenditure, due to poor access to 2nd wave broadband services but widespread availability and adoption of cheaper services such as ADSL (1st wave broadband) and wireless.** The table below indicates the average expenditure per customer for 2nd wave, 1st wave and satellite broadband extrapolating data from report.

Broadband - 2nd wave, 1st wave and Satellite Average annual expenditure per customer - 000's			
Region	**Average - 000's**	**Customers**	**Total $,000's**
Barwon South West	$1.16	74,290	$86,300
Gippsland	$1.10	54,937	$60,500
Grampians	$1.16	44,789	$52,100
Hume	$1.33	56,887	$75,800
Loddon Mallee	$1.25	66,330	$82,700

Figure 5.6 -
Average total telecommunications expenditure per capita, 2009/10



Average maximum bandwidths

Loddon Mallee is listed as experiencing the lowest average maximum bandwidth in the state at 5.89 Mbps compared to other regions ranging between 6.20 to 6.92 Mbps. **The average Mbps would not generally reflect an end user experience.** It more likely indicates inconsistent service offerings within the region and that the average end user is located some distance from a broadband enabled exchange.

Average maximum bandwidths **Region**	**Mbps**
Metropolitan	10.88
Rest of State	
Barwon South West	6.35
Gippsland	6.92
Grampians	6.20
Hume	6.45
Loddon Mallee	5.89

Unmet demand
'Unmet demand' is defined as 'those who would adopt a service if it were available to them, but the service is not available due to coverage constraints' (page 57). For further definition on demand and forecasting, refer to 'Demand at the LGA level' (pages 44, 45). Loddon Mallee rates well on unmet demand for 2^{nd} wave fixed broadband but then rates highest when 3^{rd} wave is added (pages 71, 72). **It is important to note that the projected unmet demand figures are purely the number of households or businesses and does not represent a percentage of the population size.** As an example, Bendigo has 904 households listed as unmet demand for 3rd wave broadband and a population of approximately 100,000. Surf Coast has unmet demand for the same service of 925 and a population of approximately 24,000. This equates to .9% of population for Bendigo compared to 3.85% for Surf Coast, indicating a much higher level of unmet demand for the Surf Coast based on population size.

Summary of report – Telecommunications Spend and Demand in Victoria

- Report by Access Economics Pty Ltd for DIIRD. This summary uses information taken directly from the report.
- Components of a telecommunications market – key metrics used in this report:
    - Supply – those who have service coverage
    - Demand – those who would take up the service if it were available to them
    - Take-up (subscribers/customers)
    - Expenditure
    - Unmet demand.
- Ten telecommunications categories in model:
    - Five fixed data:
        - '1st wave' broadband (initial broad band offerings, eg ADSL – 256 Kbps to 8 Mbps)
        - '2nd wave' broadband (eg ADSL 2+ - 8 Mbps to 50 Mbps)
        - '3rd wave' broadband (market segment that is made possible through FTTP or upgraded cable networks – greater than 50 Mbps);
        - Satellite and dial-up
    - Two mobile data – PC based and phone based
    - Two voice – mobile and fixed (landline)
    - Pay TV.
- Technical advances are blurring traditional segments, due largely to increasingly digital nature of telecommunications service provision.
- Report includes both household and business customers.
- Fixed voice services declining.
- Mobile voice services approaching stage of all who have use for a mobile phone service have a subscription. Revenue continues to grow strongly.

- Dial-up internet in decline. Still one million subscribers, most likely due to low users of service or those who are unaware of alternatives available.
- 1st wave broadband reaching maturity.
- 2nd wave broadband in growth stage.
- 3rd wave broadband at introduction stage.
- Satellite services reaching maturity and are mostly used where there are gaps in broadband and wireless internet coverage. Satellite services have coverage advantages but are a considerably more expensive option, due to greater cost to build and maintain infrastructure. Low number of users in Victoria.
- Phone based wireless internet in growth stage. Considered either a complementary to fixed line broadband service or a supplementary device when fixed devices are unavailable.
- Mobile internet services on laptops are increasing in popularity.
- Victoria accounts for 31.2% of total Pay TV revenue in Australia. Estimates from 2004 suggest 28% of people in Melbourne have subscription TV compared with 15% for the rest of Victoria.
- Population density is crucial to the economic viability of certain telecommunications services.
- Far west and East Gippsland among the lowest population density.
- Likely that these areas will be least able to generate sufficient demand for telecommunications services that require a certain minimum number of customers per unit area to be economically viable, or will at least be the last areas to get them before they become ubiquitous services.
- The affluence of the population has also been found to be a factor driving demand for telecommunications services.
- Large parts of Loddon Mallee in the lowest two brackets of household income (in 2006) – up to $800 per week.
- Buloke, Central Goldfields, Gannawarra and Loddon shires rate among the lowest percentage population growth for 2006 – 2009, ranging between .77% and .98%.

- The other Loddon Mallee LGA's ranged between 2% and 2.88%.
- Demographic factors that influence adoption of telecommunications include:
  - Households with younger people
  - Employment or studying
  - Educational attainment
  - Income
  - Internet access declines as geographical remoteness increases.
- Business uptake of 3G services by industry category ranges between approximately 41% (Health & Community services) and approximately 63% (Finance & Insurance).
- Firm size and the number of employees increases uptake. This is less relevant for some technologies, including broadband internet, as uptake is above 90%.
- The size and nature of telecommunications markets will be affected by the type of industries in regions, for example, where there is a disproportionate reliance on agriculture.
- The dependence on and use of telecommunications service varies markedly between industry types.
- Buloke shire at 62.2% of businesses within the region classified as agriculture, Gannawarra shire at 54.3%, and Loddon shire at 67.8% fall into this category. Swan Hill regional city is listed as 43.9% agriculture, Campaspe 38.4% and Mildura 33.6%.
- As at December 2009, only 0.9% of households and 3.8% of businesses in Victoria had access to 3rd wave broadband services, essentially restricted to Melbourne and urban fringe LGA's.
- Coverage for 2nd wave broadband services had reached 69.9% of households and 71.8% of businesses.
- 2nd wave broadband is available in most regional towns and cities of over 200 people.
- 2nd wave broadband services has overtaken 1st wave as the most popular fixed broadband service.

- Variations in telecommunications expenditure per capita exist within Loddon Mallee.
- Higher expenditure in the northern areas is due to the need to use satellite where other services are not available.
- Lower expenditure in central areas is due to widespread availability and adoption of cheaper 1st wave broadband such as ADSL and wireless.
- The higher expenditure is generally consistent with Grampians, Barwon South West and Hume regions.
- Loddon Mallee has the lowest average maximum bandwidth per capita at 5.89 Mbps. This is due to much of the LGA population living beyond the reach of enabled ADSL 2+ exchanges, where the NextG network and fixed wireless still has holes, or where the topography still creates coverage problems.
- The other regions range between 6.20 Mbps and 6.92 Mbps.
- Loddon Mallee rates well on Unmet demand for 2nd wave fixed broadband compared with other regions.
- Loddon Mallee then rates the highest for Unmet demand when 3rd wave is added to 2nd wave broadband.