



Regional Digital Plan Summary

WIMMERA SOUTHERN MALLEE

Statement from the Wimmera Southern Mallee Regional Partnership Chair

Since the establishment of the Wimmera Southern Mallee Regional Partnership in 2016, we have worked to influence and shape our region to promote prosperous and inclusive communities.

We have undertaken and supported a number of activities since then to improve the region's digital landscape. This includes supporting the implementation of government funding programs to address mobile blackspots, which has led to 33 new mobile towers being funded.

Our region is also taking part in a pilot project as part of the Victorian Government's Enhanced Broadband program. Our largest population centre in Horsham will be provisioned with very high-capacity fixed wireless services which will be a significant improvement to the services currently available. This pilot will support the growth and competitiveness of local businesses in Horsham.

Despite these activities and improvements to date, we know digital connectivity remains a key issue for our stakeholders. As such, we are proud to present our Digital Plan and this accompanying summary brochure. These documents highlight the remaining digital gaps across our region and sets out priority actions and recommendations that can continue to bridge the digital divide for the people living in and visiting our region.

The analysis within our Digital Plan is some of the most in-depth undertaken on digital supply and demand to date. It will serve as a critical tool to enable further advocacy and guide future investments to those areas most in need across our region.

I would like to applaud the efforts of the Wimmera Southern Mallee Working Group for their time and efforts in producing this work, and the Victorian Government for supporting the development of these regional Digital Plans.

I look forward to seeing the impact of our Digital Plan in shaping the digital landscape of our region and call on industry and all levels of government to use these resources to continue investing in improved digital services across our region.



David Jochinke
Wimmera Southern
Mallee Regional
Partnership Chair

What is a Digital Plan?

The Digital Plan for each region is an evidence-based, place-based analysis of the supply of and demand for digital services and skills.

The Wimmera Southern Mallee Digital Plan identifies gaps in the region's current digital infrastructure landscape and makes recommendations on how these gaps can be addressed.

The Digital Plan forms the basis of our Regional Partnerships' advocacy to all levels of government, as well as industry and community groups. It will also be a valuable resource to other stakeholders in the region for their own advocacy and action.

Addressing the digital divide

Victoria's Regional Digital Plans are the first of their kind, filling the critical information gap needed to effectively reduce the persistent country-city digital divide, defined as regional shortfalls in:



**Access to
digital services**



**The ability to
effectively use
these services**



**Their affordability
relative to their
capital city
counterparts**

A substantial digital gap has been found between regional Victoria and Melbourne:

56

**2019 Rural Victoria
digital inclusion score**

65[^]

**2019 Metropolitan
Melbourne digital
inclusion score**

[^] Rating from the 2019 Royal Melbourne Institute of Technology-Swinburne-Roy Morgan-Telstra Digital Inclusion Index (DII)

Digital issues affecting all regions

Six technology areas have been analysed in the Digital Plans to identify supply shortages in the regions:



Fixed broadband

Ensuring NBN service quality is sufficient to meet resident and business needs



Mobile coverage

Addressing the prevalence of blackspots



IoT (Internet of Things) networks

Availability of low-bandwidth networks to support the uptake of next generation technologies



Public WiFi

Availability of free public WiFi for disadvantaged residents and tourists



Access

Access to government assets to improve services locally



Digital skills

Improving digital literacy, supply of IT professionals, and workforce preparedness for the future

WSM Priority Project and Actions

Priority Project: The Wimmera Southern Mallee Regional Partnership has identified the socio-economic benefits from comprehensive digital connectivity across the region as a priority research project for the region. A business case has been completed for the region.

Priority Recommendations: The Wimmera Southern Mallee Digital Plan makes a series of recommendations to different stakeholder groups for their action. Key recommendations are summarised below:

Key recommendations:



Local Governments

Continue to play a key role as an important source of information that can help to identify localised fixed and mobile blackspots and facilitate or support digital literacy training in local digital hubs (including Libraries, Community Learning Centres, Co-working spaces and Neighbourhood Houses) if they have them within the LGA.



Victorian Government

Review and extend its regional telecommunications advocacy, co-investment funding and pilot programs; work with network operators to improve coverage data; address location-specific unmet needs from targeted highspeed broadband deployment; facilitate regional IoT and 5G developments; and expedite for regional stakeholders access to its infrastructure visualisation tool (SLIM Database).



Commonwealth Government

Continue, review and extend its mobile blackspot co-funding program, require NBN Co to maximise deployment of high-performance technologies, mandate industry meets stronger NBN service connection and maintenance requirements and invest in digital skills training programs.



NBN Co

Restructures its wholesale pricing to allow lower retail prices and encourage greater utilisation of network capacity[^], quickly bringing to market effective business grade services with strong service level agreements (SLAs) in the regions.



The Telecom Industry

Works with community and government to find solutions to address current and future unmet demands across the spectrum, particularly in thin markets, and actively consider opportunities to provide competing broadband services to businesses in high demand precincts



Local, State and Commonwealth Governments

Work together to support the Regional Partnership's advocacy for Horsham and surrounds to be considered a location for the Federal "Cities Deals" program, building on existing grains innovation precincts and the WSM's tourism potential.

[^] The Regional Partnership recognises that NBN Co is making progress on this through its Wholesale Pricing Review 2019

Wimmera Southern Mallee Regional Partnership: at a glance

The Wimmera Southern Mallee Regional Partnership is one of nine Partnerships across the state, established by the Victorian Government, recognising that local communities are in the best position to understand the challenges and opportunities faced by their region.



5 LGAs

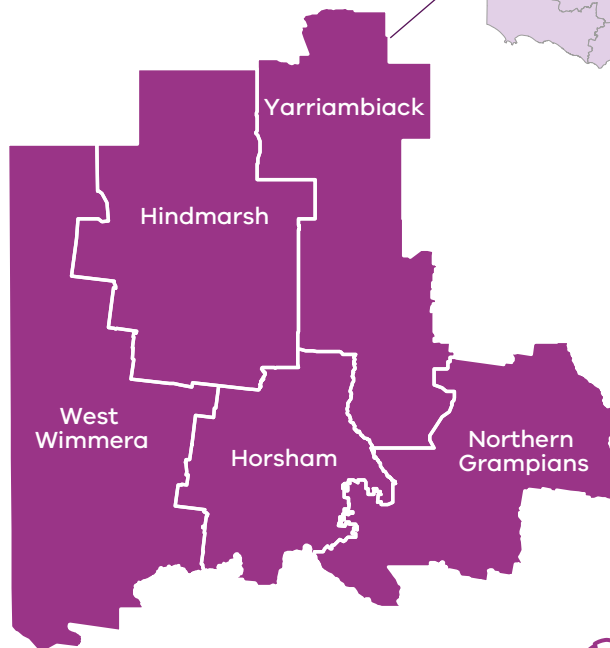
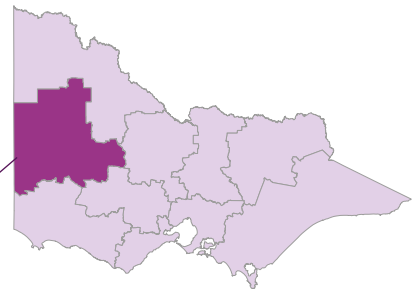
Local government areas (population):

- Horsham (20,000)
- Hindmarsh (6,000)
- Northern Grampians (11,000)
- West Wimmera (4,000)
- Yarriambiack (7,000)



**Approximately
34,000 km²**

(relatively large)



Primary Production

- Cropping
- Wool and sheep meat grazing
- Food processing
- Private forestry



\$2.5 billion

Gross Regional Product (GRP)



48,000

residents
as of 2017



Key Industries

- Health care and social assistance (17%)
- Agriculture and forestry (17%)
 - Retail trade (10%)
- Education and training (7%)
 - Construction (7%)
 - Tourism (7%)
- Manufacturing (6%)
- Public administration and safety (6%)



Assessment of digital needs

Analysis of digital supply and demand is conducted on a place and sector basis across the region to provide the evidence base necessary for effective digital planning. Places and sectors in the region have been analysed as follows:

Place/sector analysis



Significant Places

Looks at the demand and supply of digital infrastructure and services in the most populated cities, towns and localities of the region.



Primary Production

Looks at the most economically significant primary production industries in the region.



Tourist Locations

Looks at the supply of and demand for digital services in the most important tourist attractions / locations in the region.



Transport Blackspots

Looks at the availability of mobile services along the region's key transport routes.

Digital infrastructure analysis



Fixed access

Includes National Broadband Network (NBN) fixed-line broadband services including fibre to the premises (FTTP), fibre to the node (FTTN), fibre to the curb (FTTC), fixed wireless and satellite.



Mobile

Availability of digital mobile networks capable of supporting high quality voice telephony and data applications such as through 4G and forthcoming 5G networks.



Public WiFi

The availability of public WiFi services such as through public libraries and buildings, information centres and other local government initiatives.



LP-WAN IoT

The availability of Low Powered Wide Area Networks (LP-WAN) that can support Internet of Things (IoT) applications like remote sensors and devices that are increasingly relevant to industry applications.

Mallee Regional Partnership:

Key issues

The Wimmera Southern Mallee Regional Partnership has identified the following key digital issues across the region:

Inadequate mobile coverage

There is a persistent and significant divide in the quality of mobile services available to regional users compared to metropolitan users with important implications for public safety, economic development and general liveability. Regional users have emphasised this issue recently, registering 219 blackspots[~], with 36 identified as key priority blackspots across the Wimmera Southern Mallee, as part of the Commonwealth's black spot funding program.

The Digital Plan has necessarily relied on public mobile coverage maps provided by the carriers. The analysis reveals the maps to be too high-level and low resolution to enable detailed identification of areas where coverage is unreliable, weak and/or incapable of supporting the data services which users have come to expect to access 'on-demand'. This means that while an area may appear well-served by these maps, the 'lived experience' of regional users is often very different. The analysis summarised on the following pages should be read with this in mind. Better data in the future can provide a more complete picture about mobile coverage issues within towns and in areas not yet analysed by the Digital Plans.

The Regional Partnership calls for continued Commonwealth and State funding to address mobile coverage issues and better data from carriers to enable more informed funding decisions.



ACHIEVEMENTS

The WSM Regional Partnership has supported and inputted to multiple rounds of Commonwealth and State mobile black spot funding.

The WSM Regional Partnership has worked to identify the highest priority blackspot locations, contributing a list of priority sites to Round 4 of the Commonwealth's Mobile Black Spot Program. Seven more towers were funded in the latest round of this program supported by this input.

Since 2016, 33 new towers have been funded across the WSM, one of the highest of any Victorian region. There is still more to be done and the Partnerships has identified further high priority black spot locations based on local government input that it will seek funding for in future rounds of black spot programs.

[~] based on the Commonwealth *National Mobile Black Spot Database*, last updated October 2018

Lack of NBN business-grade services

The availability of adequate, affordable business-grade services for regional businesses across all NBN technology types remains a concern. This is despite the introduction of NBN's Enterprise Ethernet business service, which due to technical limitations will not be accessible to many businesses who have not received the higher capacity technologies in the rollout.

The Regional Partnership calls on the Commonwealth, NBN Co and the Victorian Government to prioritise actions that can address underserved regional business precincts with high-capacity business-grade broadband services.

ACHIEVEMENTS

Initial activity from the Victorian Government on this issue has been welcomed through the implementation of an Enhanced Broadband project in Horsham. This project will trial the delivery of a high-capacity fixed wireless network in Horsham capable of delivering higher quality services than those currently provided by the NBN. This project can help inform the applicability of similar projects to other areas across the region to ensure businesses can access the digital services they require.



Low up-take of Internet of Things applications

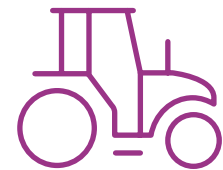
The coverage of low bandwidth Internet-of-Things (IoT) networks for agriculture, logistics, delivery of "smart city" public services and other sectors is reasonable at the moment, but availability and knowledge of IoT applications and their value-proposition is limited.

It is important for regional businesses to engage with these next-generation sensor-based business practices. Early adoption across the region can underpin productivity growth and competitiveness of our industries. If the current demand trend continues we risk being left behind.

ACHIEVEMENTS

The Victorian Government has established an Internet of Things (IoT) trial in the shire of Buloke to the north of the Wimmera Southern Mallee region.

The IoT trial in Birchip focuses on grain broadacre cropping and will see benefits flow for further uptake and education of Ag Tech in the region.





Findings of the Digital Plan

Significant Places with a shortage of digital infrastructure

There are six cities and towns above 1,000 people in the Wimmera Southern Mallee region. All of these locations have been analysed in this Digital Plan. Another five localities with less than 1,000 people were also included in the analysis to provide a broader perspective of different town sizes[†].

The analysis has not looked comprehensively at smaller population centres with less than 300 people and looks exclusively at the town centre in each location, noting that this in effect misses people living nearby in sparsely populated areas where services tend to be worse.

While our analysis of public coverage maps indicates there is generally good 4G mobile coverage within population centres provided by one or more carriers, we know from regional consultations that the 'lived experience' for many users can be quite different with continuing demand for better mobile infrastructure.

Of the 11 significant places analysed in the Wimmera Southern Mallee region, it was revealed that:

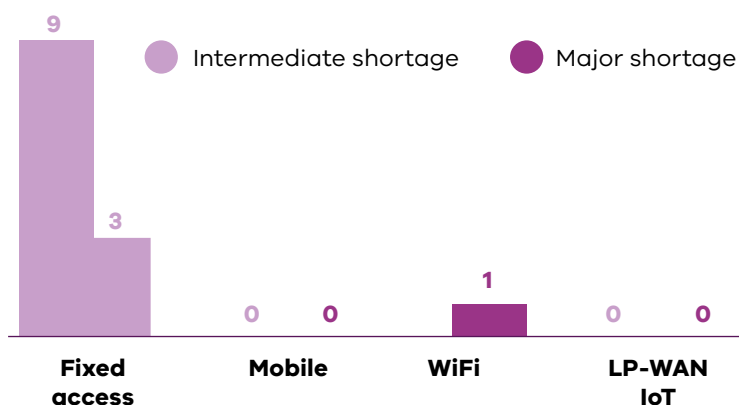
- **Fixed access broadband** had an intermediate supply shortfall for 9 cities/towns/localities*, indicating the widespread need for business broadband needs to be further considered and addressed.

- **Mobile coverage** was assessed as adequate within the main population centres based on multiple carriers indicating they have coverage in the area according to their coverage maps. However, there is concern whether these maps reflect the real-world experience of users, and what is not assessed here is how services deteriorate when moving beyond town centres. The impending rollout of 5G technology has the potential to uplift mobile services for early recipients, but smaller regional population centres are at risk of being left further behind.
- **Public WiFi** access was a major or intermediate supply shortfall for four places.
- **LP-WAN IoT** was found to be reasonably good for the level of business, local government and household demand at present which is constrained by lack of IoT knowledge and applications across the region. Over the next 3-5 years demand is expected to grow strongly and closer attention will need to be paid to how these networks develop.

[†] based on 2016 ABS census data.

* Horsham, Stawell, St Arnaud, Nhill, Dimboola, Murtoa, Rainbow, Natimuk, Halls Gap.

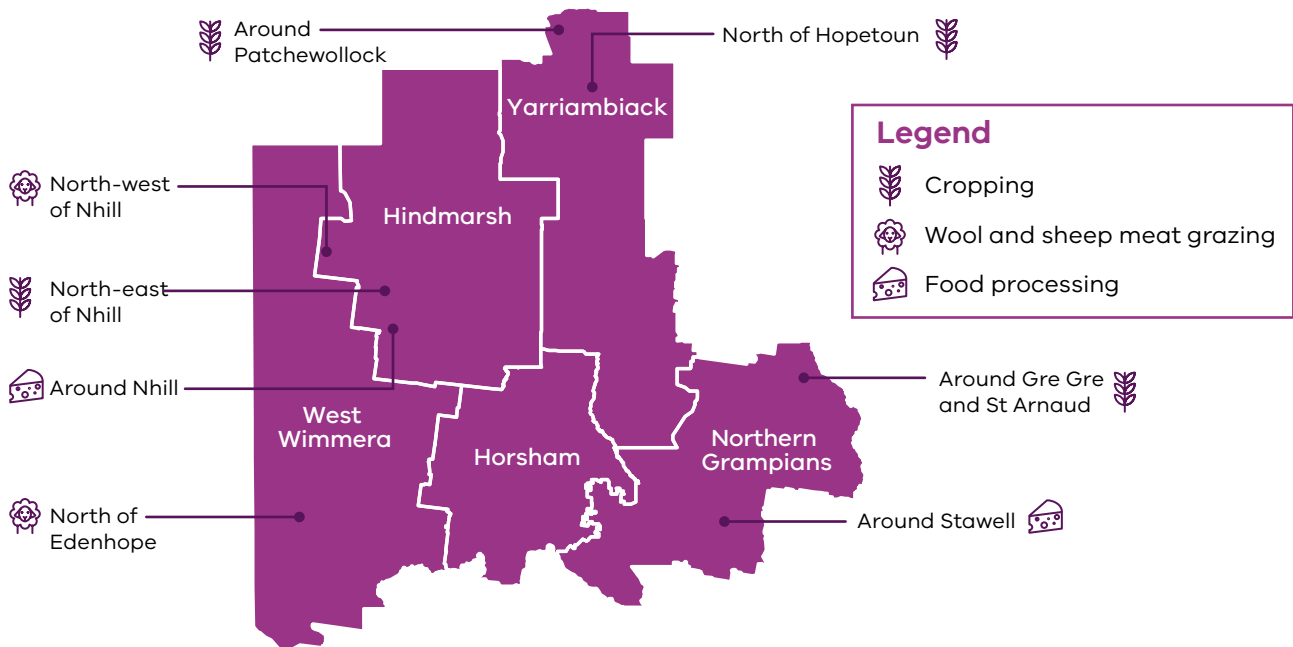
Number of places with unmet digital needs:



Analysis of primary production in the region



Primary production in the region revolves around cropping, wool and sheep meat grazing, food processing and private forestry. The nine locations analysed cover the first three major types of primary production listed to the left, seen throughout the Wimmera Southern Mallee region.



Fixed access broadband services for businesses involved in primary production needs to be addressed. In its current state, the digital infrastructure is unable to meet the region's needs, with all locations found to have a major supply shortfall in fixed access broadband satellite services for business users.

According to publicly available coverage maps, **mobile coverage** appears to be mixed – four locations revealed a major shortfall and three had an intermediate shortfall. Despite two sites reporting adequate coverage, it has been highlighted through consultation that the 'lived experience' for residents and businesses is often poorer than what coverage maps suggest, owing to the detail and resolution limitations of the maps.

One of the locations, north-west of Nhill, was found to have an intermediate supply shortfall for **LP-WAN IoT** supported services.

Looking forward 3-5 years there is likely to be little market driven improvement in mobile coverage,

and 5G technology is unlikely to replace 4G in these locations. Rising demand in the face of a largely static supply will mean the unmet demand situation will worsen.

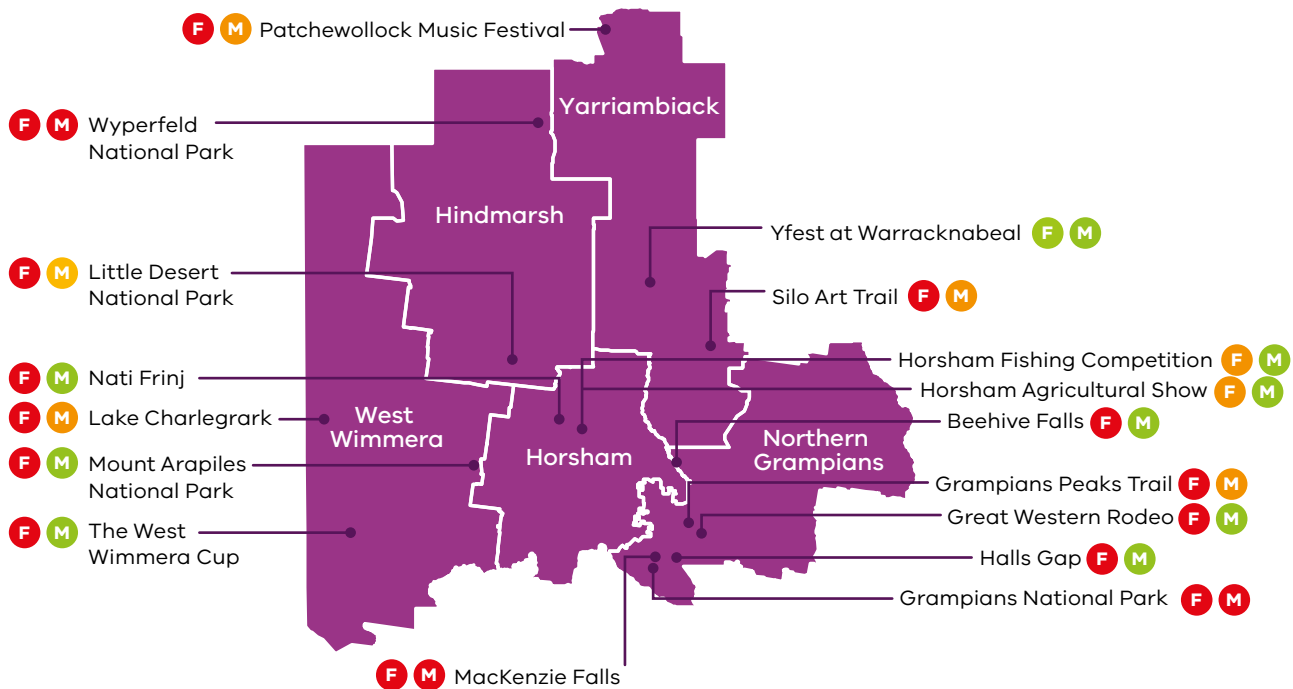
Local governments and regional businesses will need to consider leveraging government assets for cost-effective bespoke solutions, and the Commonwealth and state governments should develop more flexible mobile blackspot programs tailored to the region and its needs.

Mobile coverage nearer population centres is better than services available in more remote primary production locations, however obtaining a clear picture of where specific gaps exist or where there is weak and inadequate coverage is difficult with existing public data. Better quality coverage data is becoming increasingly important to identify priority locations in need of better mobile infrastructure.

* Major: north of Hopetoun (cropping), around Patchewollock (cropping), around Toolondo (cropping), north-west of Nhill (wool and sheep meat grazing). Intermediate: north-east of Nhill (cropping), around Gre Gre and St Arnaud (cropping), north of Edenhope (wool and sheep meat grazing).

Analysis of tourist locations

Tourist sites include year-round attractions, signature annual festivals, periodic events, and hiking trails that are frequently visited. Tourist locations, including 11 permanent spots, three events and four trails were assessed on the adequacy of digital infrastructure*:



Legend

- Major supply shortfall
- Intermediate supply shortfall
- Current supply meets or exceeds demand*
- F** Fixed access broadband
- M** Mobile service coverage

All locations have issues with fixed access broadband services. Tourist spots appear to have variable mobile coverage, with more remote locations like national parks and trails generally underserved.

* Analysis combines operator and visitor user types.

+ Note that there are reservations, based on local mobile access experience, about the good coverage indicated by public coverage maps.

Analysis of Transport Blackspots

Road and rail transport corridors need good mobile coverage for continuous mobile connectivity. Sixteen transport corridors were analysed below:

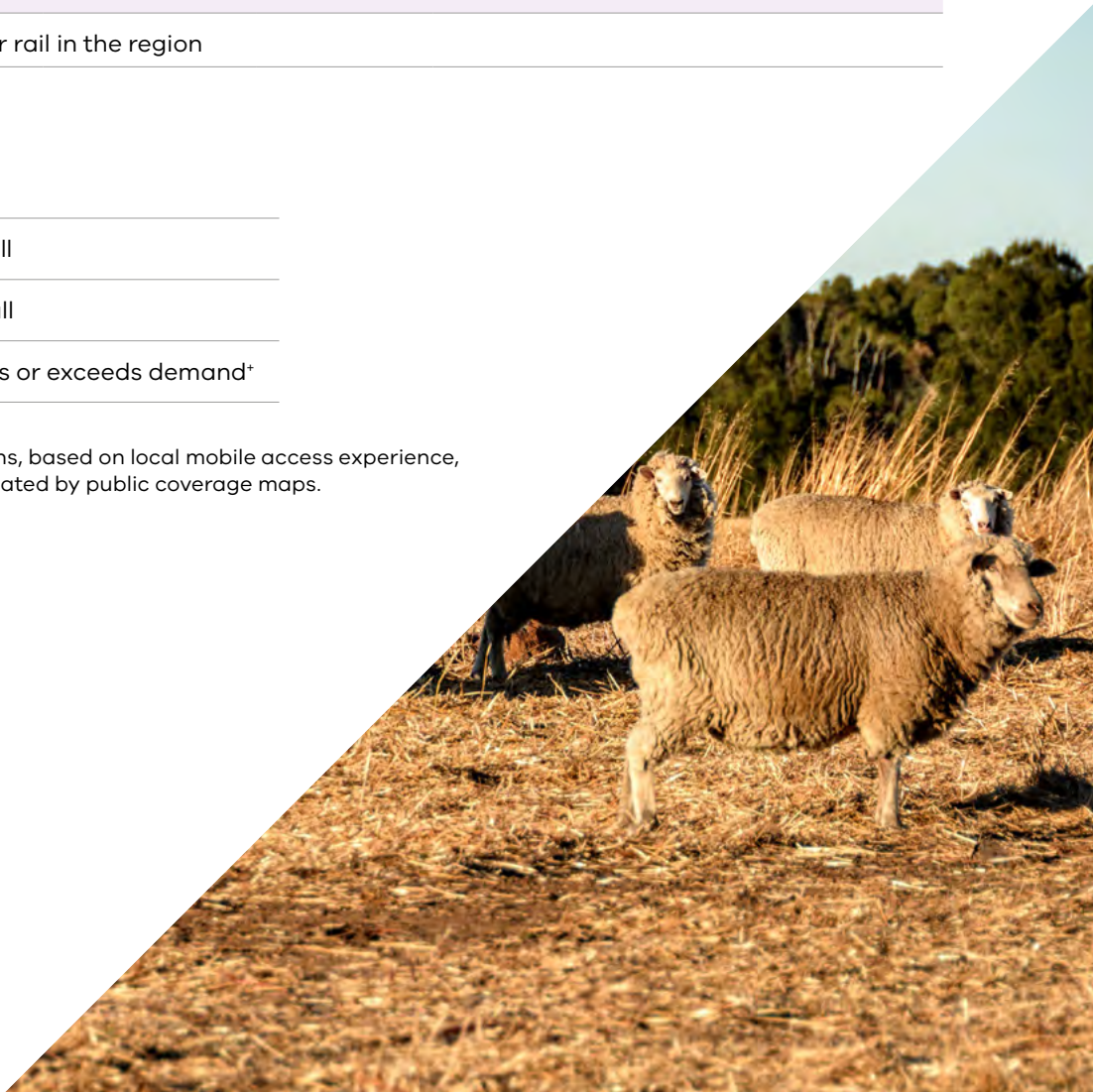


Road Class	Name	From near	To near	Mobile coverage
A/B	Henty Highway	Cherrypool	Horsham	● Patchy 4G coverage interspersed with 3G coverage by at least two carriers
	Henty Highway	Horsham	Lascelles	● Patchy 4G coverage interspersed with 3G coverage by at least one carrier
	Stawell-Warracknabeal Road	Warracknabeal	Stawell	● 4G coverage by two carriers
	Sunraysia Highway	Redbank	Cope Cope	● 3G coverage by two carriers
	Western Highway	Armstrong	Servicetown	● Continuous 4G coverage by at least two carriers
	Wimmera Highway	Aspley	Logan	● Continuous 4G coverage by at least one carrier
C	28 roads	Ararat	Maroona	● Some 4G coverage, 3G coverage from at least two carriers
Rail	No passenger rail in the region			

Legend

- Major supply shortfall
- Intermediate shortfall
- Current supply meets or exceeds demand⁺

⁺ Note that there are reservations, based on local mobile access experience, about the good coverage indicated by public coverage maps.





Next steps

The analysis and recommendations that have come out of the Wimmera Southern Mallee Digital Plan will form the basis of our Regional Partnerships' advocacy to the Commonwealth, Victorian and local governments, as well as industry and community groups in developing the future digital landscape of our region.

This Digital Plan highlights the region's current gaps in digital infrastructure and where our future demands may lie, bringing to light the areas where our efforts should be focused to bridge the digital divide. By addressing these priority areas, we will ensure our local residents, businesses and community flourish as the digital age continues to advance.

The Wimmera Southern Mallee Regional Partnership would like to thank the members of Wimmera Southern Mallee Regional Digital Plan Working Group who gave their time, thoughts and passion towards the development of the Wimmera Southern Mallee Regional Digital Plan.

Contact Us

If you would like to discuss the Wimmera Southern Mallee Regional Digital Plan please contact the Wimmera Southern Mallee Regional Partnership on:

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We look forward to hearing from you.