One Gippsland

Digital Connectivity

Policy Position

January 2021

Table of Contents

About Gippsland and One Gippsland

Gippsland is a geographically, socially and economically diverse region. At approximately 41,000 km^2, it is the largest region in Victoria. Home to over 270,000 people[1] and 6 Local Governments, the region annually produces $14 billion in Gross Regional Product (GRP).

One Gippsland is the peak regional advocacy body representing this diverse region. We aim to connect the dots between government, business and community, while also collectively working together to champion the interests of our region and our people.

It is our mission to create a thriving and dynamic region that harnesses the social, environmental and economic capabilities and assets. Gippsland has remarkable diversity so that we can offer residents opportunities for a great lifestyle and access to services at all stages of life.

A recent report produced by SGS Economics shows that Gippsland has undergone a series of economic shocks that has impacted the economic output of the region. Between 2015 and 2020 the combined effect of the COVID-19 restrictions, bushfires, dairy crisis, drought and hazelwood closure have had the following impact:

- Direct output loss of **$3.28 billion**;
- Combined direct and indirect output loss was **$6.86 billion**;
- A total of **10,213 job losses** (direct and indirect); and
- Gross Regional Product shrunk by **$2.66 billion**.

The closure of the native timber industry is expected to negatively impact direct output by **$548 million** and further shrink Gross Regional Product by **$431 million** in the next 10 years.

Despite these challenges, Gippsland has great growth aspirations including:

1. Being Australia's **most liveable region** by 2040;
2. **Raise the Digital Inclusion Index Score** to be in parity with Melbourne;
3. Attracting an additional **75,000 residents** 2040; and
4. Increasing the annual **Gross Regional Product to $23.2 Billion** by 2040.

To achieve these goals, investment in digital connectivity infrastructure will be required to improve the region's investment attractiveness, both to businesses looking to decentralise and to tree changers.

---

[1] https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/205?opendocument

One Gippsland Digital Connectivity Position

Gippsland is a large, diverse region with a sizable economic output. Good digital connectivity is fundamental to facilitating good emergency response capabilities, attracting investment and tourism to the region and improving liveability for those that reside there. Without sufficient mobile and broadband connectivity, individuals and businesses in Gippsland will find themselves at a growing disadvantage. This is increasingly more important with the recent shift in thinking around remote working and the opportunities it presents post-COVID-19.

The Australian Digital Inclusion Index (ADII),[2] which measures the level of digital inclusion across the Australian population, scores Gippsland nearly 15 points lower than inner city Melbourne (Gippsland = 55.9/ Melbourne= 69.5). Gippsland aims to raise the regions Digital Inclusion Index Score to be in parity with Melbourne by 2025.

In 2019, a Gippsland Digital Plan was developed through extensive community and industry consultation, the findings of the consultation revealed the key regional digital connectivity issues:

- **Place based Mobile Blackspots:** 496 registered mobile blackspots throughout the region;
- **Place based Fixed Line Broadband:** 72% of the regions cities and towns identified an "intermediate" supply shortfall in access to fixed line broadband;
- **Tourism Fixed Line Broadband:** 68% of key tourism locations identified a "major" supply shortfall and **32%** have an "intermediate" supply in access to fixed line broadband;
- **Tourism Mobile:** 12% of key tourism locations identified had "major" supply shortfall and **24%** had an "intermediate" supply shortfall for mobile coverage;
- **Agriculture Fixed line Broadband:** 100% have a "major" supply shortfall in fixed access broadband services for business users across the 5 key primary production regions;
- **Agriculture LP-WAN:** 60% have an "intermediate" supply shortfall for LP-WAN IoT supported services were identified across the 5 key primary production regions;
- **Freight Mobile**: Two class A roads and two key class B had "major" supply shortfalls mobile coverage; and
- **Road Mobile**: all 113 C classified roads within the region had "major" supply shortfalls mobile coverage.

Further to the lack of access to this integral enabling infrastructure, the plan further revealed that digital skills shortages are a persistent issue across Gippsland, both in terms of basic digital literacy as well as specialist technical skills to support business growth and competitiveness across the region.

This demonstrative lack in access to this important connectivity infrastructure will continue to impact and prohibit productivity and economic growth in almost all sectors across the region. An outcome not conducive to fostering and supporting economic development opportunities in Gippsland, which is urgently needed to allow the region to recover from many regional shocks.

Key Recommendations

- Prioritise Gippsland in the rollout of Round 5A of the Mobile Black Spot Program and the Regional Connectivity Program;
- Expand the Business Fibre Zone program to include all major towns in Gippsland; and
- Prioritise the cities, centres and towns of Gippsland for the $300 million co-invest development fund.

This paper has been developed to highlight the key issues that underpin this divide while highlighting the recommendations made by the Gippsland Digital Plan.

---

[2] Royal Melbourne Institute of Technology-Swinburne-Roy Morgan-Telstra, 'The Australian Digital Inclusion Index 2020' https://digitalinclusionindex.org.au/wp-content/uploads/2020/10/TLS_ADII_Report-2020_WebU.pdf

Digital Connectivity in Gippsland

Mobile and broadband connectivity is essential for a region like Gippsland, which spans approximately 41,000 km^2, (the largest region in Victoria) meaning the interconnectivity of its people, business and service providers are sparsely located and regularly on the move. Good connections overcome the tyranny of distance, poor connections create unfair divides impacting all aspects of people's lives and the region's chances to thrive.

In Gippsland, connectivity, or lack thereof, touches all parts of the region; cities, centres and rural towns. It also impedes the region's key sectors; food and fibre and tourism and there are large mobile service gaps on major freight and commuter routes that physically connect the region.

The Gippsland Digital Plan

The Gippsland Digital Plan (GDP) was developed in 2019 to articulate the region's current gaps in digital infrastructure and where future demands may lie. The development of the plan was a collaborative process that sought the views of the regional leaders, the business sector, community groups and local government. Market experts were also engaged and existing strategies and technical papers were reviewed to formulate the plan.

Place Based Impacts

Inadequate fixed line broadband and mobile coverage in cities, regional centres and towns has been identified as a key issue in Gippsland as well as adequate business-grade NBN services in key townships.

It is One Gippsland's position that Gippsland should be prioritised in the roll out of Round 5A of the Mobile Black Spot Program and Regional Connectivity Program and that the Business Fibre Zone program should be expanded to include all major towns in Gippsland.

Place Based Impacts: Cities, Centres and Towns

Gippsland is currently home to 271,266 people. With a goal of being Australia's most liveable region by 2040, while growing its population by 75,000 resident, good mobile and broadband connectivity will be key to meeting these objectives.

Fixed Line Broadband:

In creating the GDP, analysis was undertaken to assess fixed access broadband in the region's key cities, centres and towns (ranging in size: 16 over the size of 1,000 people and 6 under 1,000), it found that:

- Over 72% of these cities/towns have an intermediate supply shortfall; and
- One town (Orbost) suffered from a major supply shortfall.

Locations with intermediate supply shortfall include: Traralgon, Moe-Newborough, Warragul, Morwell, Sale, Bairnsdale, Drouin, Wonthaggi, Lakes Entrance, Leongatha, Trafalgar, Yarragon, Yallourn North, Mallacoota, Neerim South, and Glengarry.

One Gippsland congratulates the Government on the announcement of the $3.5 billion network upgrade program that will provide 75 per cent of NBN fixed line premises with access to ultra-fast broadband by 2023. We would also like to congratulate the Government on the $300 million development fund to co-invest with local, state and federal governments aimed to deliver more fixed-line broadband infrastructure into the Satellite and Fixed Wireless footprints.

Recommendations:

1. It is our recommendation that the cities, centres and towns of Gippsland should be prioritised through the $300 million development fund to co-invest with local, state and federal governments.

Mobile Blackspots:

An analysis of Mobile Network Operator (MNO) coverage maps found there were 496 blackspots registered across the Gippsland region. Mobile connectivity was better when closer to cities or larger centres such as Traralgon, Warragul, Sale or Wonthaggi, but as users move from higher density town centres to more remote areas there is not only a reduction in the availability and quality of coverage, but also in the number of network providers who offer services.

However, where mobile connectivity did exist according to the MNO coverage maps, consultation found that coverage levels were misaligned with the real-world end user experience in Gippsland. Users were reporting little to no coverage where a map indicated connectivity was high.

This real-world experience of mobile coverage shows that the situation is far more complicated than the coverage maps provided by the MNO's suggest, making these maps an unreliable source of information.

One Gippsland congratulate the Federal Government for their ongoing commitment to addressing blackspots and regional mobile connectivity issues through the continued funding of programs like the Mobile Black Spot Program, the Regional Connectivity Program and the newly announced Australian 5G Innovation Initiative.

We also congratulate the Government on their $13.7 million funding for regional research and data collection to better support the delivery of regional programs.

However, it is the position of One Gippsland that to continue to make these programs fit for purpose, more in-depth surveys need to be conducted to identify actual coverage levels in areas misrepresented in current MNO maps.

Recommendations:

Mobile Blackspots;

1. Prioritise Gippsland in the rollout of Round 5A of the Mobile Black Spot Program and Round 1 of the Regional Connectivity Program.

Mobile Coverage Surveying

1. The Government conduct more comprehensive surveys in regional Australia to identify actual coverage levels and then address black spots in pockets that are assumed to be connected with higher capabilities.

Place Based Impacts: Adequate Business-grade NBN Services

One Gippsland congratulate the Federal Government in partnership with NBN Co on their recent $4.5 billion NBN network plan announcement. A key part of this is the 240 Business Fibre Zones two of which are planned for Gippsland (Morwell, Sale).

This is a significant announcement for the Gippsland region as the availability and affordability of adequate business-grade services across all NBN technology types is a key issue in the Gippsland region.

This issue continued even after the introduction of NBN's Enterprise Ethernet business service, due to technical limitations, the service cannot be accessed by many businesses who have not received higher capacity technologies in the rollout.

It is our position that the Business Fibre Zone program should be expanded to include all major regional centres in Gippsland to enable businesses to meet growing digital demands and be contributors to the economic recovery and productivity growth of the state and country.

Recommendation:

1. Expand the Business Fibre Zone program to include all major regional centres in Gippsland.

Sector Based Impacts

Tourism and Food and Fibre are two of the largest sectors that make up the Gippsland economy, each is growing ever more reliant on high-capacity digital infrastructure such as fixed line broadband, Low Powered Wide Area Networks (LP-WAN) and mobile coverage.

It is the position of One Gippsland that Gippsland be prioritised for the Regional Connectivity Program as it will directly enable a broader range of regional communities and businesses to leverage the benefits of improved digital connectivity, including in key sectors such as agriculture, tourism, health and education.

Sector Based Impacts: Tourism

Prior to the devastating impacts of COVID-19 restrictions, Gippsland visitor expenditure reached $1.3 billion in 2019 with 3,000 small tourism businesses employing over 13,000 people.

Projections indicate in the next 10 years Gippsland could receive an extra 1.5 million visitors, growing the sectors contribution to $1.5 billion annually. This means that Gippsland will need to attract an additional 270,000 visitor nights each year to achieve this, good mobile and broadband connectivity will be key in supporting this growing visitation.

Analysis of 25 key tourist locations in Gippsland including permanent attractions, event locations and trails found that no locations had adequate fixed access broadband and although 64% of locations had adequate mobile coverage the lived experience often contradicts this.

Some of the locations that were identified as having major shortfall in supply are internationally acclaimed attractions such as the Australian Motorcycle Grand Prix and Phillip Island Penguin Parade. A breakdown of the impacts has been provided below for more context:

- 68% of locations have a major supply shortfall for fixed access broadband;
- 32% had an Intermediate supply shortfall for fixed broadband;
- 12% had major supply shortfall for mobile coverage; and
- 24% had Intermediate supply shortfall for mobile coverage.

These shortfalls in access to adequate mobile and fixed broadband create a range of issues that prohibit the fully realised economic impact of this industry, these issues include:

- **GPS and Navigation:** Tourists travelling to and around Gippsland expect good mobile connectivity and often rely on it for navigation and travel information;
- **EFTPOS terminals**: Mobile connectivity is increasingly more important for vendors who rely on 3G/4G connections for EFTPOS terminals. It is also essential in facilitating exchange of product and money, between business and buyers at events like markets and festivals; and
- **Usage spikes:** Both coastal resorts that experience sharp seasonal visitor spikes and event locations that house large tourist events (like markets or music festivals) face constraints with network capacity due to an increase in user traffic. In some locations the population can increase five-to- ten-fold.

These issues could see tourists choosing attractions closer to townships, posing real implications for businesses at more remote sites. For a region renowned for “nature based” tourism, this poses real challenges as many of the attractions are away from main town centres.

Further, it could affect the attractiveness to potential event organisers in choosing a location in Gippsland. Without intervention, these implications will likely affect the productivity and economic abilities of the tourism sector in Gippsland.

One Gippsland note Federal Government programs that seek to address coverage issues for tourism operators such as the *Mobile Blackspot Program* and the *Regional Connectivity Program* and recommend that Gippsland is prioritised in the program rollouts to address these issues.

Recommendations: Improve connectivity for tourism

1. Prioritise Gippsland in the rollout of Round 5 of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program

Sector Based Impacts: Food and Fibre

The food and fibre industry in Gippsland has a gross value of $7 billion[3]. Gippsland has a goal of Increasing the annual Gross Regional Product to $23.2 billion by 2040, to be able to achieve this, productivity and economic growth must be made possible through improved digital infrastructure.

International exports from the region are worth $1.3 billion and agriculture (and associated industries) makes up three of the top five international export industries in Gippsland.[4] The agribusiness sector is a significant employer in the region, with over 37% of Gippsland’s business involved in agriculture and fishing and a further 15% involved in upstream processing operations.

[3] https://investgippsland.com.au/industries/agri-food/

[4] Aither, ‘Gippsland Regional Profile: an analysis of regional strengths and challenges March 2019’

Mobile, Fixed Broadband and LP-WAN

Fixed access broadband, mobile coverage and LP-WAN IoT supported services are key enablers of the growing automation requirements in this industry. Without adequate access to these kinds of digital infrastructure the industries productivity will not be fully realised.

Of the 5 key primary production regions in Gippsland analysed:

- 100% have a major supply shortfall in fixed access broadband services for business users; and
- 60% have an intermediate supply shortfall for LP-WAN IoT supported services.

The Federal Government's Digital Business Plan highlights a shared objective to support Australia's economic recovery and future productivity growth through businesses that embrace digital technologies.

In order for primary production businesses within Gippsland to adequately contribute to this goal and rapidly adopt technology, mobile and broadband coverage needs to be sufficient enough to support the use of such technologies.

Without the appropriate infrastructure that allows for the use of technology such as IoT applications and other devices, businesses will not be able meet these objectives. If this coverage shortage is not addressed, the Gippsland region will struggle to remain competitive in an ever-increasing digital age.

Recommendations:

1. Prioritise Gippsland in the rollout of Round 5 of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program.

Transport Connectivity Issues: Transport Corridors

Due to Gippsland's size, dispersed population and economic reliance on tourism and food and fibre production, transport connection routes that co align with digital connections are key to the region's objectives to improve the liveability and productivity of the region.

One Gippsland acknowledge and congratulate the Australian Government for their recognition of mobile coverage issues on major regional transport corridors through Round 5A of the Mobile Blackspots Program. This is a prevalent issue in Gippsland with several road and rail corridors lacking adequate mobile coverage.

Rail Mobile Connectivity

There is an intermediate shortfall in mobile coverage supply on Gippsland rail between Traralgon and Bairnsdale. Train travellers frequently report poor connectivity in areas where the MNOs suggest good coverage is provided. This is due either to localised mobile blackspots or carriage types that block passenger in-carriage reception.

The rail corridor between Traralgon and Bairnsdale is a significant route for commuters, tourists and the Gippsland community. Poor connectivity on this rail line is prohibitive to the productivity of commuters and decreases the attractiveness of the area to travelling tourists, private sector decentralisation and investment opportunities in the region. This puts the region, and its residents, at a growing disadvantage to those in metropolitan and suburban areas.

This issue could be mitigated through funding mobile coverage solutions of this section of rail, or by the State and/or Federal Government providing free Wi-Fi connections on passenger rail services to ensure passengers are able to remain connected for the entire journey.

Recommendation

1. Enhancements for mobile services on V/Line trains east of Traralgon to Bairnsdale need to be prioritised to enable liveability and better attract investment; and
2. Deliver free passenger Wi-Fi on public transport.

Road Mobile Connectivity

Like rail, there is a lack of adequate mobile coverage on road corridors throughout Gippsland. The GRP identified:

- **Two class A roads and two key class B roads**: have major shortfalls in coverage supply (3G or little/no coverage). These roads service a large catchment of the Gippsland population, provide essential connections for travelling tourist and connect food and fibre producers with export and domestic markets; and
- **All 113 C classified roads:** Within the region have major shortfalls in supply (little coverage and no cover in alpine regions). These roads are also key to the connectivity of the Gippsland region, helping community members travel for essential services, work and school and stay safe in times of emergency.

The 'market' alone is expected to fail in addressing these connectivity issues (especially with the introduction of 5G) due to the region's geography and dispersed population. Intervention is required to lift mobile coverage on these more minor roads.

Recommendation:

1. Prioritise Gippsland in the rollout of Round 5 of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program; and
2. Include coverage solution on smaller more localised transport corridors to allow for necessary local connections and to facilitate more widespread tourism throughout the region, outside of main town centres in the next round (6) of the Mobile Black Spot Program.

Digital Literacy and Skills Issues

Consultation with industry has shown that digital proficiency is a persistent issue across Gippsland both for digital literacy and specialist technical skills. Further, regional business needs are often not properly represented within digital skills training and government supported courses are often too inflexible to the needs of the community.

Without adequate and targeted IT and/or specific industry specialist training, the digitally-capable regional workforce will continue to dwindle.

Education attainment could be in-part a contributor to this digital literacy and skill deficit with Gippsland's year 12 attainment rate sitting at 30% (below the state average). Increasing education attainment to be in line with the state average by 2025 is a key goal of the region (as outlined in the Gippsland Regional Plan).

One Gippsland Acknowledge government initiatives such as the new National Careers Institute digital platform and the Digital Skills Organisation Pilot, however to address digital proficiency in Gippsland more localised and focused training is required especially as these initiatives require access to sufficient technology and base level skills.

Recommendations

1. Drive initiatives that remove financial barriers for young students and adult learners to access technology;
2. Facilitate digital literacy learning across Gippsland targeting community and business, including funding to develop region- specific training courses;
3. Increase post-secondary Information Communications and Telecommunications (ITC) skills to support Gippsland's growth; and
4. Develop and deliver a digital capability assessment/strategy for Gippsland businesses that will assist in economic growth and access to export markets.

Summary of Recommendations

Issue	Recommendation
Fixed Line Broadband:	Prioritise the cities, centres and towns of Gippsland for the $300 million co-invest development fund.
Mobile Black Spots	Prioritise Gippsland in the rollout of Round 5A of the Mobile Black Spot Program and Round 1 of the Regional Connectivity Program.
Mobile Coverage **Surveying**	The Government conduct more comprehensive surveys in regional Australia to identify actual coverage levels and then address black spots in pockets that are assumed to be connected with higher capabilities.
Business-Grade NBN	Expand the Business Fibre Zone program to include all major regional centres in Gippsland.
Improve **Connectivity For Tourism and Primary Production**	Prioritise Gippsland in the rollout of Round 5 of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program.
Mobile Connectivity: Rail	Enhancements for mobile services on V/Line trains east of Traralgon to Bairnsdale need to be prioritised to enable liveability and better attract investment.
	Deliver free passenger Wi-Fi on public transport.
Mobile Connectivity: Road	Include coverage solution on smaller more localised transport corridors to allow for necessary local connections and to facilitate more widespread tourism throughout the region, outside of main town centres in the next round (6) of the Mobile Black Spot Program.
Digital Literacy and Skills	Drive initiatives that remove financial barriers for young students and adult learners to access technology.
	Facilitate digital literacy learning across Gippsland targeting community and business, including funding to develop region- specific training courses.

	Increase post-secondary Information Communications and Telecommunications (ITC) skills to support Gippsland's growth.
	Develop and deliver a digital capability assessment/strategy for Gippsland businesses that will assist in economic growth and access to export markets.

Explainer

Definitions of Supply Shortfall Categories

- **Supply Meets or Exceeds Demand**: the supply of digital infrastructure is suitable to meet its demand
- **Intermediate Supply Shortfall**: where there is a medium supply of a technology but a high demand
- **Major Shortfall in Supply**: where there is low supply of a technology but a high demand.

Digital Infrastructure Type	Supply Meets or Exceeds Demand	Intermediate Supply Shortfall	Major Supply Shortfall
Fixed Access Broadband - Business	• Mainly FTTP or FTTC (these technologies can deliver Enterprise Ethernet business grade service); AND/OR • There are one or more competing networks providing comparable business grade services at similar prices to NBN business grade service.	• Mainly FTTN (user uncertainty about availability of Enterprise Ethernet service); AND • There are no alternative networks offering comparable business grade services at similar prices.	• Mainly fixed wireless (service only available up to 50 mbps) OR • Mainly satellite (current satellite services are only available up to 25 mbps and there are data limits); AND • There are no alternative networks offering comparable business grade services at similar prices.
Fixed Access Broadband - Community	• NBN FTTP, FTTC or FTTN are available (this is comparable to the metro household), AND/OR • There are one or more competing networks offering 100 mbps+ service at comparable prices to NBN.	• NBN fixed wireless is available; AND • There are no competing networks offering 100 mbps+ service at comparable prices to NBN.	• Only NBN satellite is available; AND • There are no competing networks offering 100mbps+ service at comparable prices to NBN.
Mobile Coverage (Business and Community)	• Two or more 4G networks are available.	• Only one 4G network is available.	• There is no coverage by any mobile network; OR • The only coverage available is predominantly 3G.
Narrowband (LP-WAN) IoT access	• Near-complete coverage by at least one LP-WAN network.	• Patchy or no coverage.	• Patchy or no coverage.