

**Australian Government
Regional Telecommunications Review 2021**

**Submission by One Gippsland
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About Gippsland and One Gippsland

Gippsland is a geographically, socially and economically diverse region. At approximately 41,000 km², it is the largest region in Victoria. Home to over 270,000 people¹ 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.

Snapshot

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.

The *One Gippsland Digital Connectivity Policy Position* [can be viewed at this link](#).

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



Executive Summary

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.

Digital connectivity is essential to modern-day life, both to those who reside in metropolitan and regional Australia. Although connectivity has come a long way in recent years, there is still a large digital divide between urban, regional, rural and remote Australia.

The Australian Digital Inclusion Index (ADII) 2020, which measures the level of digital inclusion across the Australian population, puts the Gippsland region nearly 13.6 points behind inner-city Melbourne.² Although this gap has decreased marginally over the past few years, the divide is not resolving quickly enough. Even within 'well served' regional areas, users regularly face issues in accessing the same reliable and high-capacity mobile coverage levels enjoyed by those in metropolitan Melbourne.

In 2019, a [Gippsland Digital Plan](#) was developed 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. 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.

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



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.

Not only is good connectivity important to the economics of a region like Gippsland, it is vital to the region's ability to react appropriately, manage and conduct good emergency procedures during times of natural disasters (like recent bushfires). The importance of assurances on digital connectivity in these times does not only relate to the elimination of current blackspots, but also to the network resilience of current and future infrastructure to prevent outages in times of emergency.

Service Impacts

Mobile Blackspots/Mobile Network Operator (MNO) Mobile Coverage Maps

Regional cities and towns (as well as significant road and rail routes within Gippsland) are categorised as having good mobile coverage according to publicly available mobile network operator (MNO) coverage maps. However, consistent community feedback and anecdotal evidence suggests that coverage quality is significantly less than what is stipulated in these maps.

Further, the connectivity capabilities on regional and rural roads within Gippsland are unsatisfactory; prohibiting the attractiveness of these areas to tourists and also creating unsafe emergency situations. Likewise, poor in-carriage reception is experienced on trains operating east of Traralgon.

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.

This is unsurprising, given that these less populated areas are also less revenue dense for Mobile Network Operators (MNOs) and often coverage solutions are more costly. Adequate digital infrastructure provision by these operators should be seen as a market failure, which leaves those living in these areas with worse coverage than nearby regional centres and much worse coverage than metropolitan Melbourne.

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.



Publicly available coverage maps published by the relevant MNOs often list a level of coverage that is misaligned with the real-world experience in Gippsland. That is, the maps often list reliable 4G connections in areas that are in fact are blackspots. Mobile phone users in regional areas frequently report weak signals and call drop-outs in areas that are claimed to have good coverage.

This real-world experience of mobile coverage shows that the situation is far more complicated than the coverage maps provided by the mobile network operators suggest.

This issue has been confirmed by the Victorian State Government in conjunction with the Commonwealth Government and Australian Competition and Consumer Commission (ACCC). Both the State and Federal Government and the regulator have pressed the mobile network operators to publish more useful coverage data. Based on this, it can be concluded that there is broad recognition that the MNO's maps are unreliable and not reflective of real-time service levels.

There is a significant market failure in mobile coverage results for Gippsland. This is not reflected in publicly available MNO coverage maps, making them an unreliable source of information. Continuing to rely on the information in these maps is prohibitive to good emergency response, investment opportunities and the liveability of the regions. Furthermore, continuing to use these maps is misaligned with government's priority to address connectivity issues in regional Australia; issues cannot be addressed if they are unknown.

Recommendations:

- Prioritise Gippsland in the rollout of the next round of the Mobile Black Spot Program and Round 1 of the Regional Connectivity Program;
- 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;
- An obligation for MNOs to provide reasonable standards of service to lowly populated areas; and
- The Government invest funding to improve the capabilities of MNO maps.

Fixed Line Broadband

Access

This disparity outlined above between connectivity in metropolitan and regional areas is also present between regional hubs and the smaller rural and remote towns that surround them. As users move from higher density regional town centres to more remote areas there is not only a reduction in the availability and quality of digital coverage, but also too in the number of network providers who offer services.

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:



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

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.

Affordability

The ADII also shows that affordability remains a key challenge and has almost certainly been exacerbated by the COVID-19 economic slowdown. The Affordability score has increased only marginally since 2014³. Even though the absolute cost of internet data has gone down, households are now spending more money on internet services due to greater usage – which can be contributed to the requirement of many households having to work and study from home. Expenditure on these services has generally increased faster than household income over this period. The national average Affordability results obscure the hardships faced by those households on low or fixed incomes seeking to remain digitally connected. The ADII shows that the proportion of household income spent on internet access by those living in the lowest household income quintile has increased every year since 2014 and underpinning this is a widening gap in Affordability between Q5 low-income and Q1 high-income households. Three of the six LGAs in the Gippsland Region are Q4 low-income.

Business

One Gippsland notes the 240 Business Fibre Zones project that includes the towns of Morwell, Cowes Sale and Wonthaggi as the availability and affordability of adequate business-grade services across all NBN technology types is a key issue in the Gippsland region.

Unfortunately, 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 and we would like to see the program 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:

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

³ ³ 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



Sector-based Impacts

Gippsland is a large and diverse region with high economic output. Good mobile connectivity is fundamental to facilitating good emergency response capabilities, attracting investment to the region and improving liveability for those that reside there. Without sufficient mobile connectivity, individuals and businesses in Gippsland will find themselves at a growing disadvantage. This has grown increasingly more important over the past two years with the remote working requirements brought on by COVID-19 restrictions.

Tourism and food and fibre are two of the biggest industries in Gippsland, being connected to reliable and fast mobile and internet networks is key to growing these industries.

Fast, reliable connections allow the agriculture sector to grow and innovate by being able to streamline processes using the Internet of Things (IoT). Similarly, good connections assist the tourism industry by creating networks that can handle usage spikes during large scale events and encourage tourists to holiday in our region.

This digital divide, if not addressed, will continue to impact and prohibit growth in almost all sectors across the region. This is not conducive to fostering and supporting economic development opportunities in the region, which could be a key contributor to the post-COVID-19 economic recovery.

The Gippsland regional economy is driven by sectors such as primary production and tourism as such, is crucial that connectivity solutions are implemented that facilitate the economic drivers of regions like Gippsland.

Tourism

In 2019, Gippsland visitor expenditure reached \$1.3 billion and had 3,000 small tourism businesses employing over 13,000 people.

Given the devastating impacts of both the COVID-19 pandemic and the 2019/2020 bushfires on the Gippsland tourism industry, any further disadvantage to this sector could see businesses closing their doors for good. (The estimated loss of visitor expenditure for the December 2019 to March 2020 period is \$170-180 million).⁴

This is a key industry for Gippsland, and fostering its continued growth is essential for building the region's economy.

⁴ Bushfire impact model based on International and National Visitor Survey, Regional Expenditure Model, June 2019, Tourism Research Australia



Like the agricultural industry, tourism in Gippsland has also been identified as having low current digital intensity with requirements only set to grow over the next 3-5 years for the industries to remain competitive.⁵

Tourists travelling to and around Gippsland expect good mobile connectivity and often rely on it for navigation and travel information. Overseas tourists are also often heavily reliant on mobile internet connections as they are less familiar with their surrounds and are used to greater coverage in their home country.

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.

⁵ McKinsey Digital – Digital Australia: Seizing the opportunity from the Fourth Industrial Revolution; OCED – A taxonomy of digital intensive sectors



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:

- Prioritise Gippsland in the rollout in the next round of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program; and
- Mobile roaming availability for international visitors in remote locations.

Food and Fibre

The food and fibre industry in Gippsland has a gross value of \$7 billion⁶. 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.

In 2018/19, agricultural production in Gippsland made up 14% of the total gross value of agricultural production in Victoria (\$2.2 billion of Victoria's \$15.9 billion).⁷ International exports from the region are worth \$1.3 billion and agriculture (and associated industries) make up three of the top five international export industries in Gippsland.⁸

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. Livestock products, including milk production, represent about 50% of that total, followed by Livestock Slaughters (30%), and Crops (20%).

The flourishing dairy industry in Gippsland produces 32% of Victoria's dairy production or 19% of Australia's dairy production and accounts for about a thirds of Victoria's total dairy revenue. There is a large dairy-processing sector within the region producing fresh milk, milk powder, butter, cheese and other products for domestic and significant export markets. Several speciality cheese businesses also exist in Gippsland producing a wide range of high-quality cheeses and other value added dairy products.

In addition to dairy, Gippsland has a significant grazing industry based predominantly on beef, but also wool and prime lamb production. A significant proportion of the high value grass-fed beef produced in Gippsland is exported to regions throughout Asia.

Gippsland has a thriving vegetable-producing industry. The trend for vegetable processors is to market fresh vegetables, however some regional processors are utilising value-adding techniques such as cleaning and packaging to meet the 'consumer ready' markets.

⁶ <https://investgippsland.com.au/industries/agri-food/>

⁷ <https://www.agriculture.gov.au/abares/research-topics/aboutmyregion/vic-latrobe#agricultural-sector>

⁸ Aither, 'Gippsland Regional Profile: an analysis of regional strengths and challenges March 2019'



Energy production is one of Gippsland's major industries, based in the Latrobe Valley and Bass Strait's oil and gas fields. The region produces around 90% of Victoria's electricity and 97% of Victoria's natural gas, with 46% of Australia's oil coming from the Bass Strait fields.

The Gippsland forestry industry encompasses a wide variety of operations, from Australia's largest pulp and paper mill to many small hardwood mills. It is estimated that the value of forestry to Gippsland's economy is comparable to that of agriculture.

An analysis of digital intensity requirements reveals that agriculture will rely heavily on digital services over the next 3-5 years to be able to retain competitiveness in the Australian and international market.⁹

The *Gippsland Digital Plan* assessed the current unmet needs of five primary production (beef, dairy, grazing) locations in Gippsland.

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 findings show that, in the best circumstances, these primary production areas have a shortfall in coverage supply – meaning often supply does not meet the needs of the producers. Further, two surveyed locations were identified as having major shortfalls in supply.

The digital requirements for agriculture and primary production businesses in Gippsland will be an ever-increasing evolution. Evidence to date suggests that market led solutions will likely continue to fail to address this growing gap, leaving solutions for these issues to the remit of federal or state government blackspot programs.

As demonstrated, agriculture and primary production are key driving forces in the Gippsland regional economy but also too in the Victorian state economy. To not foster and support the growth of business in this sector could be economically detrimental to both the region and state's economy.

For these reasons, One Gippsland is calling for Gippsland to be prioritised in the next round of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program.

Recommendation:

- Prioritise Gippsland in the rollout in the next round of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program.

⁹ McKinsey Digital – Digital Australia: Seizing the opportunity from the Fourth Industrial Revolution; OCED – A taxonomy of digital intensive sectors



Transport Corridors

It is noted that in the *Australia Government Mobile Black Spot Program—Round 5A— Discussion paper (Section 1C)*, it was proposed that a third component of Round 5A was reserved for funding to target coverage along major regional and remote transport corridors (including to communities along these corridors).

Further proposed in the discussion paper was that Round 5A would target transport corridors defined in the Roads of Strategic Importance initiative and National Land Transport Network, as these “identify significant transport corridors that deliver economic and social benefits to Australia”.

Whilst One Gippsland agrees with prioritising regional and remote transport corridors, only using routes defined within the Roads of Strategic Importance (ROSI)¹⁰ initiative or National Land Transport Network (NLTN)¹¹ is problematic. These initiatives are not representative of the Gippsland region as there are no rail, and few key road corridors identified in either of these programs.

Road and rail corridors that provide key linkages for businesses, commuters and tourists are fundamental to the success of regions and also the national economy, as such these linkages should be considered under the proposed criteria. Smaller regional residential roads should also be included as coverage in these areas is essential in emergency situations like evacuating during bushfires.

Mobile Coverage - Rail Corridors

Rail routes from Melbourne to Traralgon have strong and continuous mobile connectivity following the Victorian State Government VicTrack¹² program that undertook significant work on enhancing mobile connectivity on regional V/Line routes throughout the state.

There has however been an identified intermediate shortfall in supply on Gippsland rail between Traralgon and Bairnsdale.

Unsurprisingly (given the aforementioned issues with MNO coverage maps), 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. Yet, under this proposed coverage area, solutions to address the lack of mobile coverage on this essential rail corridor would not be eligible for funding. 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 our region, and its residents, at a growing disadvantage to those in metropolitan and suburban areas.

¹⁰ https://investment.infrastructure.gov.au/key_projects/initiatives/roads_strategic_importance.aspx

¹¹ https://investment.infrastructure.gov.au/about/the_national_land_transport_network.aspx

¹² Victorian State Government, 'VicTrack', <https://www.victrack.com.au/projects/past-projects/regional-rail-connectivity>



Recommendations:

- 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
- Deliver free passenger Wi-Fi on public transport.

Mobile Coverage - Road Corridors

The ROSI includes only one road within East Gippsland (which services a small section of the community). Similarly, the NLTN also only identifies one road, a main thoroughfare from Melbourne to Traralgon with adequate mobile coverage. This therefore excludes most of the Gippsland region, many areas of which have significant mobile connectivity issues.

The *Gippsland Regional Plan* 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.

As shown earlier, tourism is a key industry in the Gippsland economy. Bad connectivity on road corridors means that tourists cannot access the required mobile GPS services needed for travelling around the region. In an already competitive market, the tourism industry is going to be even more so following the bushfires and COVID-19. Not resolving these issues could be detrimental to Gippsland's competitiveness in this industry.

Additionally, the Gippsland Digital Plan notes 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 etc.

The market alone is expected to fail in addressing these connectivity issues. Intervention is required to lift mobile coverage on these more minor roads.

The Gippsland regional economy is driven by sectors such as primary production and tourism as such, One Gippsland believe that any further rounds of the MBSP should support coverage solutions that facilitate the economic drivers of regions like Gippsland.



Recommendations:

- Prioritise Gippsland in the rollout of the next round of the Mobile Black Spot Program and Round 1 of the Regional Connectivity Program; and
- 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 of the Mobile Black Spot Program

Specific responses to the questions posed by the Review

1. What telecommunications services are required in regional Australia to meet current and future needs? Are there any things regional communities and businesses need to do, but can't, on their existing services?

Put simply, businesses and communities in the Gippsland region require faster, more reliable and more affordable connectivity options that is comparable to their counterparts in metropolitan Melbourne. As previously noted, the ADII puts the Gippsland region nearly 13.6 points behind inner-city Melbourne.

These services include fixed broadband, mobile coverage and IoT (Internet of Things) networks. Availability of free public WiFi is also vital for disadvantaged residents and tourists. Unreliable connectivity services result in a decrease of economic output for businesses and the inability for disadvantaged residents to access reliable connectivity which will see the socio-economic divide continue to increase in regional Victoria.

If improvement in digital literacy does not occur, this will result in further unpreparedness for local workforces in areas such as Information Technology. This is an industry that has been identified as having shortages of local workers.

Following are a range of digital issues that have been identified and are applicable to each of the Gippsland Local Government areas. They include:

Issue	Baw Baw	Bass Coast	South Gippsland	Wellington	Latrobe	East Gippsland
Poor mobile phone coverage and reliability	✓					✓
No or inadequate public WiFi, including in small towns	✓		✓		✓	✓



Issue	Baw Baw	Bass Coast	South Gippsland	Wellington	Latrobe	East Gippsland
Lack of general/digital proficiency		✓	✓		✓	✓
Lack of access to existing government telecommunications infrastructure		✓				
Lack of access to technology skills training			✓	✓	✓	✓
Shortage of skilled technology professionals				✓	✓	✓
Poorer than expected NBN capability and reliability				✓	✓	
Limited knowledge and uptake of IoT technology				✓		

2. What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural and remote Australia?

There are 31 cities and towns above 1000 people in the Gippsland regions. A selection of 16 these, including the largest and smallest, were analysed in the Gippsland Digital Plan. Another six localities with less than 1,000 people were also included in the analysis to provide a broader perspective of different town sizes. The analysis did not look comprehensively at smaller population centres with less than 600 people and looked exclusively at the town centre in each location – in effect missing people living nearby in sparsely populated areas where services tend to be worse. While analysis of public coverage maps indicates a generally good 4G mobile coverage, regional consultations have indicated there is continuing demand for better mobile infrastructure.

Analysis revealed:

- Intermediate and major supply shortfalls of fixed access broadband;
- That mobile coverage is not reflective of data analysis from public coverage maps;
- Smaller regional population centres are at risk of being left further behind with the 5G rollout;
- Intermediate and major supply shortfalls for public WiFi; and



- With LP-WAN IoT demand expected to grow strongly, there is concern for adequate supply.

Dispersed populations create hesitancy for MNOs to implement new and maintain current infrastructure in rural and remote areas due to a lower customer return but there should be an obligation for MNOs to adhere to a reasonable standard and not sacrifice lowly populated areas.

With the Gippsland region's rising demand in connectivity, available government assets may need to consider leveraging available government assets for cost-effective bespoke solutions, as well as tailoring mobile blackspot programs to the region to decrease the supply-demand gap.

3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural and remote Australia? How can these be improved?

Although Government's policies and programs have sought to identify and support greater connectivity in areas outside of metropolitan Melbourne, more needs to be done. This could be by more in-depth surveys being conducted in regional Victoria to identify actual coverage levels and then address blackspots in pockets that are assumed to be connected with higher capabilities.

One Gippsland recognises that better technology to address blackspots may need to use more advanced technologies than would otherwise be used in less challenging terrain. It is One Gippsland's recommendation that the government should consider these challenges and make allowances for the required funding of these solutions within the Mobile Black Spot Program.

4. How do service reliability issues impact on regional communities and businesses? How do outages, including in natural disasters, impact on communities and businesses?

Although not the first time Gippsland has experienced severe bushfires, the recent 2019/20 fires caused damage to the likes not experienced in the region before. Over 1 million hectares of forest, agricultural land, livestock and private homes in a number of communities were destroyed and approximately 1,700 people were evacuated from Mallacoota alone.

These fires were devastating to both community and native flora and fauna and demonstrated the very real and pressing holes in the ability for community access to receiving vital information.

Already known mobile blackspots caused issues in receiving and disseminating information, and impacts on the telecommunication networks during these fires exacerbated this issue over large pockets of the region.



Telecommunication networks are more essential than ever during bushfires as they are crucial to the dispersing and receiving of information vital to decision making. Further, they are crucial to the connectivity and communication required between emergency services and evacuation centres.

A report conducted by the Australian Communications and Media Authority (ACMA)¹³ shows that the majority of mobile service outages experienced during the bushfires was due to power outages at base stations, not direct fire damage (80% of outages were due to power outages while only 1% was due to fire damage). This has drawn attention to the need for resilience in telecommunication networks.

In the most recent spate of bushfires, the country saw 1,390 telecommunication network facilities impacted, 77% of which caused mobile outages.

Further, 51% of these facilities experienced outages of four hours or more, 26% experienced outages of less than four hours and 23% were impacted without experiencing any service outages.

The most important of these statistics, is the 323 (23%) facilities either directly or indirectly impacted by the bushfires, that did not experience any service outage. According to the report conducted by ACMA, this is because the facilities were supported by backup power until mains power was able to be restored.

These power outages often cause prolonged telecommunication outages as MNOs are unable to access base stations to fix power outages or deploy backup generators as the area may be unsafe to enter. Further, outage of less than 4 hours' experience at the 359 facilities were resolved by the restoration of power.

This shows that that by having backup power already at these base stations, network impacts from power outages can be minimised and, in many cases, eliminated altogether.

The average length of outages at mobile base stations during the recent bushfires was 2.5 days. Mandating that all funded solutions provide at least 12 hours of auxiliary backup power (as proposed in section 7 of the Mobile Black Spot Program Discussion Paper) would therefore not be long enough to cover the average outage time experienced during bushfires. Requiring base stations to have at least 48 hours of auxiliary backup power to avoid immediate and prolonged outages during times of natural disaster would be more fitting.

5. How might such impacts be addressed to ensure greater reliability? How can the network resilience be addressed in regional areas?

¹³ Australian Communications and Media Authority, 'Impacts of the 2019–20 bushfires on the telecommunications network', <https://www.acma.gov.au/publications/2020-04/report/impacts-2019-20-bushfires-telecommunications-network>



It is vital that new or updated infrastructure should be funded in regional areas that are prone to natural disasters and that infrastructure must have at least 48 hours of auxiliary backup power to avoid immediate and prolonged outages during times of natural disaster.

Recommendation:

That infrastructure have at least 48 hours of auxiliary back-up power to avoid outages during disasters.

6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?

Like all consumers and businesses in Victoria, the Gippsland region, has had to adapt to a more online way of life due to the COVID-19 pandemic. Due to this pivot, there is obviously an increased reliance on digital connectivity. Not only has the Gippsland region had to endure the repercussions of the COVID-19 pandemic, it follows further effects of recent bushfires, the dairy crisis, drought and the closure of the Hazelwood Power Station – all of which have made the economic effects for the region extremely acute.

A recent report produced by SGS Economics shows the combined economic effects of these factors for the period of 2015-2020. It should be noted that the following impacts do not include the further negative impacts of which the COVID-19 pandemic has brought over 2021.

The impacts include:

- Direct output loss of \$3.28 billion;
- Combined direct and indirect output loss of \$6.86 billion;
- A total of 10,213 job losses (direct and indirect); and
- Gross Regional product decrease of \$2.66 billion.

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

It is therefore more important than ever that businesses have the necessary requirements of digital connectivity as we approach the re-opening of the economy when the Victorian State Government assesses it can occur.

7. What can be done to improve the access and affordability of telecommunications services in regional, rural and remote Indigenous communities?



Due to the socio-economic demographic of the Gippsland region, affordability of telecommunications services in regional Victoria is an issue.

One Gippsland would like to see service providers develop alternative billing options to offer clustered services where businesses share data to reduce costs. Another improvement would be to allow business and industry to access existing government infrastructure, ie. VicTrack.

Investing in enhanced digital connectivity solutions across the Gippsland region where key tourist and event locations would also be of great benefit to restart the tourism industry. Initiatives such as enabling mobile roaming for international visitors in remote locations and supporting event organisers with appropriate technologies to cope with the expected demand of future community events could be implemented to support economic growth.

Recommendation:

- That providers develop billing options to offer clustered services so businesses can share data.

8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?

The rate of digital proficiency amongst the Gippsland community is not at a high level compared to metropolitan counterparts. Even with the initiatives of Digital Skills Organisation Pilot and the National Careers Institute digital platform, more localised and focused training is required as these initiatives require access to sufficient technology and base level skills. Therefore, unless infrastructure is fit-for-purpose, digital literacy is unlikely to improve in the region.

Programs that remove financial barriers for young students and adult learners to access technology could result in improving workforce shortages in various industries that require medium to high levels of digital proficiency, thus increasing local employment and increasing the ability of business growth.

The IoT for the agriculture sector streamline processes creating profitability and business growth and co-investment by government would also be beneficial.

Recommendations:

- Drive initiatives that remove financial barriers for young students and adult learners to access technology;
- Facilitation of 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; and
- Develop and deliver a digital capability assessment/strategy for Gippsland businesses that will assist in economic growth and access export markets.

11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?

A prompt rollout and investment in new solutions is of great urgency. The Government should consider a number of initiatives including:

- Identifying a series of hubs from existing business centres and government facilities to provide leading edge digital access;
- Legislate digital connectivity in land planning laws for commercial and industrial development; and
- Prioritise enhanced digital investment into new infrastructure developments, ie. Gippsland Hi-Tech Precinct, Latrobe Gov Hub and the E-Learning Hub in Bairnsdale.

Recommendation:

- That digital connectivity for commercial and industrial development be legislated in land planning laws.

12. How can different levels of Government, the telecommunications industry and regional communities better co-ordinate their efforts to improve telecommunications in regional Australia?

This requires a multi-faceted effort by all levels of government, NBN companies and the Telco industry.

Local government should continue to use their local presence, insights and planning powers to identify localised fixed and mobile blackspots, influence NBN technology deployment, promote early 5G rollout and facilitate digital literacy training.

State government should co-invest in pilot programs to address unmet needs and capitalise on opportunities from IoT and 5G.

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

NBN companies should restructure its wholesale pricing to allow lower retail prices and encourage greater utilisation of network capacity and quickly bring to market effective business grade services with strong Service Level Agreements (SLAs) with retailers and resellers.



Telco industry should consider opportunities to provide competing broadband services for businesses in high demand precincts, particularly if NBN fails to restructure its wholesale pricing or does not provide effective business grade services.

As outlined, there are individual organisations working in silos to deliver digital connections which often works across purposes and leads to low outcomes. One Gippsland could assist with collaboration to assist in delivering better services for our communities.

Recommendation:

- Regionally strategic organisations like One Gippsland should be used by the individual parties responsible for digital connectivity to coordinate delivery and oversee outcomes.

13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?

There are numerous opportunities for government to improve current programs and invest in new initiatives that would improve the delivery of effective telecommunications solutions.

One recommendation is that comprehensive surveying be conducted in regional Australia to understand actual mobile coverage capabilities. MNO maps are unreliable and should not be the only source of coverage information the government considers in the design of the mobile blackspots program.

One Gippsland agree with the proposed second component of Round 5A set to reserve funding (and potentially offer higher levels of funding) to solutions that deliver services to low population areas (as stipulated in section 1-B in the Australian Government Mobile Black Spot Program, Round 5A, Discussion paper).

One Gippsland therefore recommend that key industries such as tourism and primary production be prioritised in the next of Round of the Mobile Blackspot Program. This is on the basis that mobile connectivity is becoming ever more important for the region's key industries. If these blackspots and shortfalls are not resolved, businesses will be put at an economic and social disadvantage.

One Gippsland would also like to see the Business Fibre Zone project to include all major towns in Gippsland. The lack of access currently prohibits productivity and growth across those towns. It would also be beneficial to prioritise the cities, centres and towns of Gippsland for the \$300 million co-invest development fund.

Further proposed in the discussion paper was that Round 5A would target transport corridors defined in the Roads of Strategic Importance initiative and National Land Transport Network, as these "identify significant transport corridors that deliver economic and social benefits to Australia".



Transport corridors eligible for within this priority area should not be limited to those defined within the Roads of Strategic Importance initiative and National Land Transport Network. A more flexible model would allow for connectivity solutions on important road and rail routes that don't fit within these two initiatives to be funded where required.

Whilst One Gippsland agrees with prioritising regional and remote transport corridors, only using routes defined within the Roads of Strategic Importance (ROSI)¹⁴ initiative or National Land Transport Network (NLTN)¹⁵ is problematic. These initiatives are not representative of the Gippsland region as there are no rail, and few key road corridors identified in either of these programs.

Road and rail corridors that provide key linkages for businesses, commuters and tourists are fundamental to the success of regions and also the national economy, as such these linkages should be considered under the proposed criteria. Smaller regional residential roads should also be included as coverage in these areas is essential in emergency situations like evacuating during bushfires.

This issue therefore sees One Gippsland support the proposed reservation of funding (and potentially higher levels of funding) for solutions that deliver services in low population dense areas.

By including criteria that facilitates the eligibility of these roads in next round of the Mobile Blackspot Program, the Government can assist the Gippsland region in stemming any further growth in the current digital divide.

Recommendation:

- Prioritise the cities, centres and towns of Gippsland for the \$300 million co-invest development fund.

14. How can regional consumers be better supported to identify, choose and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?

Selection of appropriate providers is a confusing and time-consuming task. One Gippsland recommends the establishment of a national independent telecommunications advisory service for consumers (including businesses) regarding technology options, programs and pricing. In addition to that, implementation of stronger NBN service level agreements and a monitor to uphold these standards would be beneficial.

¹⁴ https://investment.infrastructure.gov.au/key_projects/initiatives/roads_strategic_importance.aspx

¹⁵ https://investment.infrastructure.gov.au/about/the_national_land_transport_network.aspx



15. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?

The MNO maps do not have the adequate accuracy required to frame a proper analysis of the situation of digital coverage. These maps are not sufficient for government to make accurate decisions on new and existing telecommunications infrastructure and output.

Investment into improving the MNO maps is urgently required to enable a proper assessment of capability and needs.

16. What other matters should the Committee consider in its review and why are they important?

An area that is important both for liveability and safety purposes is mobile coverage on rail. There is currently an intermediate shortfall in mobile coverage supply on Gippsland rail between Traralgon and Bairnsdale. Even though MNOs suggest good coverage is provided, this is not the case, with train travellers frequently reporting poor connectivity. This train route is a significant route for both commuters, tourists and the Gippsland community. Poor connectivity decrease the attractiveness to tourists, private sector decentralisation and investment opportunities within the region.

Initiatives that could be considered are enhancement of mobile services on V/Line trains east of Traralgon and delivery of free passenger WiFi on public transport.

Further Information

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(Federal Lobby Register No: 18169904232)



Summary of Recommendations

Issue	Recommendation
Fixed Line Broadband	Prioritise the cities, centres and towns of Gippsland for the \$300 million co-invest development fund.
	That providers develop billing options to offer clustered services so businesses can share data.
	That digital connectivity for commercial and industrial development be legislated in land planning laws.
Mobile Black Spots	Prioritise Gippsland in the next Round 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.
	An obligation for MNOs to provide reasonable standards of service to lowly populated areas.
	The Government invest funding to improve the capabilities of MNO maps.
	Regionally strategic organisations like One Gippsland should be used by the individual parties responsible for digital connectivity to coordinate delivery and oversee outcomes.
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 the next round of the Mobile Blackspot Program and Round 1 of the Regional Connectivity Program.
	Mobile roaming availability for international visitors in remote locations.
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.
Network Resilience	That infrastructure have at least 48 hours of auxiliary back-up power to avoid outages during disasters.