

TELSTRA CORPORATION LIMITED

Submission to the Regional Telecommunications Review 2018

7 August 2018

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EXECUTIVE SUMMARY

Regional and rural communities want and deserve better connectivity and the knowledge, tools and support to take full advantage of it. Rollout of the national broadband network (NBN) and the expansion of mobile network coverage are improving connectivity, but there are pricing and capacity barriers to the take-up of nbn co services that need to be addressed. Moreover, the digital divide between urban and regional Australians must be tackled with targeted government support in partnership with industry and communities if regional Australia is to realise the full benefits of improvements in connectivity.

Improvements in connectivity

Over the last few years regional connectivity has improved markedly, driven by the rollout of the NBN and the improvements in mobile coverage resulting from the Federal Government's Mobile Black Spot Program (MBSP) and other similar co-investment initiatives, in which Telstra has played a part.

- In the last three years alone we have invested \$2.2 billion in our regional mobile network, and our commitment to regional Australia is continuing with the delivery of more than 650 sites under the MBSP, now more than two thirds complete.
- To make the most of existing mobile coverage we have launched the Telstra Go Repeater with a monthly repayment option, and trialed solar repeaters to extend connectivity to individual premises beyond the edge of the mobile footprint.
- We have allocated \$100-\$200 million over four years for additional co-investment opportunities with partners to improve regional network coverage. This program takes account of social indicators, opportunities to partner with other programs, benefits for entire communities rather than just individuals, and the level of 'digital inclusion' in the local area.
- We are also looking forward to deploying new technologies that extend mobile coverage including 4G small cells which use satellite backhaul to break down the tyrannies of distance and isolation, and to participating in future rounds of the MBSP.

More generally, there are reasons to be positive about the future of connectivity in regional areas due both to the Government's focus on ensuring that basic telecommunications services are available to all Australians no matter where they live or work, and to the strong basis for continued market competition.

- At this early stage of development the Government's Universal Service Guarantee (USG) policy
 appears to be both sensible and feasible, not least due to the global transition from legacy circuitswitched voice to VoIP, which the NBN is generally well-placed to support.
- The regional telecommunications market is increasingly competitive due to strong infrastructure competition between different network providers and retail competition over the NBN, which will improve further if nbn co improves the product/price proposition for regional products (see below).

While some connectivity use cases are currently challenging to meet, particularly in the agricultural sector, it is important to bear in mind that the economics of coverage expansion are not static. Over time new technologies are developed, costs decrease, and revenue opportunities increase, so that the economics are always changing and new opportunities for economic investment and/or co-investment are created.



nbn co pricing and regional Fixed Wireless

The NBN is creating, for the first time, a guarantee of good broadband connectivity for regional and rural customers. But despite its physical availability, currently there are significant price barriers to the uptake of nbn co services nationally, and particularly in regional areas, that need to be addressed.

- Using research from the Bureau of Communications and Arts Research which showed that the average Australian household spends 3.5 per cent of disposable income on telecommunications,¹ Telstra's own analysis shows that at this rate nbn co services are unaffordable for low income households, which have barely \$116.50 per month to spend on everything other than basic living.
- Current nbn co pricing is more expensive with less value offered than legacy services like ADSL, so that customers are not incentivised to migrate, particularly where they are more price sensitive, and therefore miss out on the speed and capacity benefits the NBN was created to deliver.

nbn co is under pressure to maintain high prices to meet a commercial rate of return. However this ignores the social returns generated by the NBN. If they are taken into account, nbn co could set lower commercial targets and offer lower prices leading to higher take-up and community benefits, and improved productivity for businesses in regional and rural communities, and for on-farm agricultural activities.

Of particular relevance to regional customers is the pricing and capacity of nbn co's Fixed Wireless services, which are subject to price and capacity barriers additional to nbn co services nationally. This leaves regional customers as second class citizens – an outcome the NBN was explicitly set up to avoid.

- nbn co has not included its Fixed Wireless service in its fixed line bundles. nbn co is currently
 considering the future wholesale pricing structure for Fixed Wireless, which Telstra considers
 should align to that available in the fixed line footprint, ensuring that customers are not
 discriminated against based on a technology choice they do not make themselves.
- In cases where there is insufficient capacity provisioned for nbn co's Fixed Wireless network, speeds and realisable data usage are not consistent with nbn co's claims for the product, which offers less value than legacy alternatives and therefore discourages migration to the NBN.

We recommend as an interim measure that nbn co release a Fixed Wireless product consistent with its current network capabilities to avoid confusing and disappointing customers while it works to provision capacity sufficient to meet the mandate of the NBN to improve on legacy services.

More generally, it would be helpful for customers and retailers alike if nbn co were more transparent about its technology roadmap for regional and rural Australia, the consumption trends it is seeing over its network in these areas, and a sense of its plans to accommodate these trends in future.

Barriers to the use of digital technologies

Connectivity is just the beginning. Regional communities also need access to good information to ensure they understand what services are available to them and what mix of services will best suit their needs. Telstra has not always been as good at this as we should be given our long history of engagement in regional Australia, but we are making efforts to turn this around and will continue to focus on it.

¹ <u>https://www.communications.gov.au/departmental-news/new-research-shows-communications-services-are-more-affordable</u>



- We have recently improved our mobile coverage maps by adding predicted in-building coverage and future coverage based on a rolling 3-month investment plan. We will add Category M1 Internet of Things (IoT) coverage in future and work with industry to make sure our coverage maps are comparable.
- We have created a regional page on our Telstra Exchange website to provide clear and relevant product information, and we are working to ensure that all our product information pages of interest to regional and rural customers are made more relevant to them.
- We have established a dedicated call centre team with specialised knowledge to manage calls from customers located more than 100 kilometres from a Telstra branded store to ensure our more remote customers' needs are properly understood and catered for.

Inadequate information is just one barrier to regional customers' ability to make the most of the connectivity that is available to them. Perhaps more fundamentally, a significant proportion of people in regional areas are unable to take full advantage of digital services, as revealed by the Telstracommissioned Australian Digital Inclusion Index (ADII).

• The ADII 2017 reveals significant differences between rural and urban areas across the digital inclusion measures of Access, Affordability and Digital Ability. Lower levels of digital inclusion are related to lower levels of education, employment, age, income and geography.

Improving Digital Ability should be a priority for policymakers, business, the education sector, and community groups, requiring collaboration across all three levels of government to deliver program funding for initiatives driven at the regional and local level. This is even more important in relation to Indigenous Australians given their particular circumstances.

- Indigenous Australians score below the national average on Access, Affordability and Digital Ability. The largest gap is on Affordability, partly due to the prevalence of mobile-only connectivity in the Indigenous Australian population. More remote communities have larger inclusion gaps.
- Despite digital inclusion challenges, Indigenous Australians are more likely than the general population to see digital technology as a pathway to a better future. In that regard they stand to benefit greatly from digital capability programs specifically for Indigenous Australians.

We recommend that digital inclusion be made a measurable commitment in the Closing the Gap agenda, and that government support appropriate digital capability programs, shared Wi-Fi and nbn Satellite access, and an audit of essential service websites to ensure they are mobile-accessible.



01 Introduction

Telstra commends the Committee for the comprehensive consultations it has undertaken with regional communities, and we look forward to the translation of community views into the Committee's findings and recommendations. We participated in every one of those consultations. As a result of what we heard, we have augmented our answers to the specific questions in the discussion paper with some additional views that we hope are helpful to the Committee.

In our view, telecommunications availability is steadily improving for regional customers overall as a result of sustained public and private investment over recent years, but there is always more to do and significant barriers to full connectivity remain. In summary:

- Telstra, and the telecommunications industry more broadly, continues to invest in widening and deepening telecommunications infrastructure in regional areas, particularly mobile infrastructure.
- Public investment in the NBN has led to the availability of good broadband services for the first time in some areas, although specific problems with the performance, affordability and differential treatment of regional and metro NBN services do need to be addressed.
- Improving connectivity is not enough by itself regional communities need targeted assistance to develop the skills necessary to take full advantage of broadband and mobility and the increasing range of value-adding services they offer.
- The industry is working to improve not just access to broadband but also information for consumers on the different types and mix of services available in different areas, in order to improve their ability to make good choices and take advantage of competition.

In the first **Regional issues** section of this submission we first outline the network investments and other commitments Telstra has made to regional Australia in the form of products and services tailored for regional use. We then set out some problems with the way nbn co currently provides its Fixed Wireless service, and explain the need for nbn co's products to take account of low income customers nationally. Finally, we explain the new technologies emerging as part of the Internet of Things (IoT) and lend our support to the development of the Government's USG policy.

In the second section, we answer the individual **Discussion questions** set out in the Committee's discussion paper, except those aimed solely at the customers of nbn co's Fixed Wireless and Satellite products.



02 Regional issues

2.1. Telstra's commitment to regional engagement and investment

Telstra's longstanding commitment to regional Australians is unwavering. We are planning and investing in a digital future that champions the needs of regional and remote communities.

2.1.1. Telstra's investments under the Mobile Black Spot Program

In the last three years alone, we have invested \$2.2 billion in our regional mobile network. Our commitment to regional Australia is continuing with the delivery of more than 650 sites under the Federal Government's Mobile Black Spot Program (MBSP), now more than two thirds complete.

Figure 1 – Telstra Mobile Black Spot Program sites



Under the MBSP rules, the constructor of a tower is incentivised to build the structure so that another mobile network operator (MNO) can co-locate on it. Telstra has embraced this approach. This has led to substantial co-location in practice, noting that different networks rarely require a tower in exactly the same location. The details are often commercial-in-confidence, but over the 10 years between 2006 and 2016, for example, there were 3,711 applications made to Telstra from access seekers who



wished to co-locate on a Telstra mobile facility and were ready to submit a design and construction proposal (Level 3 applications), and of these, 3,615, or 97 per cent, were approved.²

Figure 2 – Carriers co-located on Telstra mobile facilities (2016)



² Telstra Response to the ACCC's Discussion Paper on the declaration of a wholesale domestic mobile roaming service, p. 41







2.1.2. Telstra's investment in regional communities and innovative technologies

Telstra is listening to regional and remote communities. In the last year, we've formed five partnerships with the National Farmers Federation (NFF) and state farming organisations. Recently, 15 roundtable discussions were held with the NFF across Australia to help grow the agricultural industry to \$100 billion farm gate output by 2030. We are investigating opportunities with state and federal governments to co-invest in key agricultural growth regions, to help the industry meet this 2030 target.

Telstra is embracing new and innovative applications of technology to enhance and extend coverage and connectivity in rural and regional Australia. Foremost of these is our 4GX-lite Mobile Satellite Small Cell solution. We plan to launch 500 small cells across regional and remote Australia over the next 3 years. This solution can be economically delivered to areas that previously have never had mobile coverage, enabling the social and economic benefits that come with being connected.

The Satellite Small Cell is funded by co-contributions from Telstra and the customer, where the customer pays an initial amount to cover the cost of installation and we build and maintain the small cell, reducing the cost of gaining access to new coverage from hundreds of thousands of dollars for a new base station to tens of thousands.

Other innovative developments include:

• Launch of the Telstra Go Mobile and Stationary Repeater in May 2018, an intelligent antenna solution which extends mobile coverage and enables customers to access coverage in some places where it might be otherwise unavailable. Operating on Telstra's 3G, 4G and 4GX



technology, Telstra Go Repeater receives mobile signals through an external antenna and then enhances and re-transmits this signal to a single indoor or in vehicle antenna. The devices are suitable for both in-building and vehicle use. This product complements existing Telstra products such as the Telstra Mobile Smart Antenna 4G. Recognising the different needs of customers, this product is available to purchase outright, or via monthly instalments;

- A Telstra trial which uses solar repeaters to provide an internet connection to customer premises up to 20 km away from another point that is within the Telstra Mobile coverage footprint;
- A three month trial using Telstra's network, through which selected families in the Royalla area will be able to purchase from a range of over 100 products from Chemist Warehouse, using X's Project Wing App and have these items delivered to their doorstep by drone in only a few minutes; and
- The use of drones by Telstra to assess the suitability of infrastructure sites and improve repair times in the event of extreme weather or natural disasters in Tasmania.

These programs will help Telstra drive a step change in regional customer experience, launch new market-leading products and services, handle ever growing data volumes at the highest levels of reliability and significantly reduce costs for Australian's living in regional, rural and remote areas.

2.2. Progress on the Internet of Things

The Internet of Things (IoT) is empowering innovation to transform our customers' businesses and help them to challenge their competitors. Low-cost plans, affordable and simple devices and technology purpose built for data collection, can now deliver unprecedented insight across an entire supply chain or any part of business operation. We are also fostering the Australian IoT ecosystem through Telstra Labs, which includes Australia's first publicly-accessible GSMA Open IoT Lab.

2.2.1. IoT in the agricultural sector

IoT is an evolution of Machine to Machine (M2M), where connectivity merges with cloud computing and big data. Multiple different sensors can now generate two-way data traffic to/from a single platform. We are currently exploring various use cases for IoT and Supply Chain Optimisation with the relevant industry bodies and our customers as part of our continued focus on the Agribusiness sector. This work will help inform what future solutions we provide to support the industry.

We are working with cotton, livestock, horticulture and grains industries as well as the NFF as part of our long-term partnership. Farm gate IoT use cases include, but are not limited to, water management, asset inspection via drones, hyper-local weather prediction, asset tracking and management, and farm data aggregation and analytics.

For Supply Chain Optimisation we are focusing on areas such as provenance, stock visibility and traceability via the enablement of improved visibility between stakeholders and the sharing of approved and relevant data between parties. This involves working with various supply chain participants including primary producers, transport and logistics providers, processors and retail/end customers.



Case Study – Peloris

Peloris is the leading authority in cross border supply chain and expedited clearance services for fresh Australian goods throughout Asia Pacific. For Peloris, exporting fresh produce over 7,000 kilometres from Australia to China was not an easy task.

Three years ago, it was a challenge for Peloris to export milk products to China. It took more than two weeks for a shipment of milk just to pass through Chinese quarantine. Today, Peloris is responsible for 40 per cent of all fresh milk exports into China worldwide.

Our IoT technology helped Peloris open up new markets for exporting fresh food. We created a solution called Sendum that ensures the integrity and traceability of the fresh milk. For Peloris, that meant they could access data in real time to assure the quality of the milk by monitoring the temperature all the way from the farm to when it arrives in China. This visibility and transparency has allowed Peloris to see the products at all stages of the supply chain, helping to improve overall efficiency.³

2.2.2. Network capabilities and the technology ecosystem

In August 2017, we activated our Cat M1 capability across our entire 4GX coverage footprint, becoming the first telecommunications provider in Australia to offer the technology and accelerating the growth of Australia's IoT ecosystem. The activation of Cat M1 has enabled a coverage footprint of around three million square kilometres for compatible Cat M1 devices – easily the largest in Australia and one of the largest in the world.

Cat M1 paves the way for new types of devices and applications operating over greater distances, at lower costs and with much longer battery life. Transport companies tracking deliveries, sensors telling farmers when to water their crops or mining companies monitoring air quality in their facilities are just some of the potential uses for Cat M1.

In addition to Cat M1, in January 2018 we announced another significant step forward in the development of IoT in Australia with the successful deployment of Narrowband technology on our mobile network. With Narrowband IoT, we have added the ability to support new IoT devices, like sensors and alarms, at very low data rates, that can sit inside machines and vehicles, reach deep inside buildings and operate with a battery life of years rather than hours and days.

The deployment of Narrowband IoT means we are the only carrier in Australia and one of the first carriers in the world to offer both Narrowband and Cat M1 IoT technologies. This enables our customers, particularly our enterprise customers in industries like transportation and logistics, mining, manufacturing and agriculture, the opportunity to choose which technology best suits their needs.

³ https://exchange.telstra.com.au/internet-of-things-transforms-agriculture-industry/





Figure 4 – Telstra's Cat M1 coverage – around 3 million km²

This year, Telstra entered into a Smart City partnership with the Tasmanian State Government, Launceston City Council and the Federal Government to trial, develop and use new technologies and drive the uptake of IoT in Launceston. This agreement includes establishing an IoT lab in Launceston. Also, Telstra will support the creation of a Tasmanian Agritech Start-up Accelerator and lead a broader partnership including three additional Councils and the University of Tasmania.

2.3. nbn affordability and the regional/metro pricing divide

Getting the pricing of wholesale NBN services right is crucial for maximising take up and ensuring the potential benefits of the NBN are realised for all Australians. There are two main issues relevant for regional communities in relation to NBN pricing. First, we consider NBN services to be unaffordable, particularly for those customers who are vulnerable or in

low-income households. Second, we consider it critical that pricing for NBN Fixed Wireless services (which are routinely used in regional Australia) is aligned with pricing for nbn co's services in the fixed-line footprint, to ensure regional customers are not unfairly treated.

2.3.1. Broadband pricing, particularly for entry level plans, is unaffordable

Telstra's analysis shows that vulnerable, low-income households cannot afford basic broadband services. This affordability issue has not been addressed by nbn co to date. We commend nbn co's most recent consultations on the introduction of an Entry Level Bundle,⁴ but consider that the

⁴ nbn PDF Consultation, June 2018



constructs as currently proposed do not address the fundamental affordability issue and provide neither a competitive voice-only service nor entry level broadband service.

Telstra has examined the effect of nbn co pricing on low-income customers from two perspectives:

- 1. We considered the average income levels of those households in the lowest income quintile (i.e. lowest 20 per cent)⁵ and estimated what would be a reasonable expenditure level for telecommunication services. To estimate the 'reasonable expenditure level; we utilised research undertaken by the Bureau of Communications and Arts Research, which showed that the average Australian household spends 3.5 per cent of its disposable income on telecommunication services.⁶ We compared the estimated expenditure levels which assume lower income households also spend 3.5 per cent (\$33-\$109 per month) of their income on telecommunications services to the actual cost of in market nbn and mobile plans. This shows that low income households cannot afford basic communications services if they are limited to only spending 3.5 per cent of their income on such services.
- 2. We reviewed ABS income and expenditure data for households in the lowest-income quintile.⁷ We found that after accounting for basic living costs (e.g. housing, electricity/gas, food, medical care, and transport),⁸ these households have \$3.83 per day (\$116.50 per month) to spend on other goods and services, including telecommunication services, clothing, education and other recreation activities.

Current nbn co pricing is not incentivising customers to migrate to the NBN because by migrating they will be financially disadvantaged. Further, the current pricing structure adopted by nbn co is resulting in a wholesale Average Revenue Per User (ARPU) floor of \$45 for the majority of end users without consideration of their varying needs. This high ARPU floor is potentially problematic particularly in the context of declining legacy ADSL/Cable prices⁹ where customers can easily access 50GB legacy ADSL2+ offers priced from \$29.99 per month¹⁰. In contrast, for the same price point, consumers are only able to obtain 10GB data allowance at a low speed NBN 12 Mbps service (with typical evening speeds of 11 Mbps)¹¹.

Clearly, nbn co seeks to incentivise customers to move up the speed stack to realise the benefits of the faster speeds generally available on the NBN. This is evident from the introduction of new fixed line bundles (in May 2018), which set an entry level wholesale price of \$45 for the 50/20 speed tier, with the bundle price increasing to \$65 for the 100/40 speed tier, and is further evident from nbn co's Corporate Plan 2018-21, which notes that ARPU is expected to increase to \$52 in FY21. However, these high ARPU targets are potentially excluding a large cohort of the market who are more price sensitive. Therefore, we consider that nbn pricing must be adjusted to ensure broadband is accessible for all consumers. In regard to entry-level nbn services, Telstra has recently submitted to nbn co that it needs to reconsider its pricing for consumers that are seeking a voice only service or an entry level broadband service.

Australia: Summary of Results, 2015-16 ABS

⁵ Table 5.1 of 6523.0 - Household Income and Wealth, Australia, 2015-16 ABS

⁶ <u>https://www.communications.gov.au/file/28486/download?token=a_EaL6S9</u>

⁷ Table 5.1 of 6523.0 - Household Income and Wealth, Australia, 2015-16 ABS

⁸ Table 5.1 of 6523.0 - Household Income and Wealth, Australia, 2015-16, Table 3.1 of 6530.0 - Household Expenditure Survey,

⁹ <u>ACCC, Telecommunications , 2016-2017</u>

¹⁰ TPG ADSL2+ 50GB, (as at 31 July 2018)

¹¹ TPG NBN Plans, NBN 12, 10GB Data, (as at 31 July 2018)



Driving nbn co's pricing levels and ARPU targets are its own commercial (rate of return) targets. For example, the regulatory framework applied to nbn co (i.e. ACCC regulation of nbn co via nbn co's Special Access Undertaking) has nbn co earning a weighted average cost of capital of 5.629 per cent. This represents the 'private' return and includes a return on debt and return on equity for the Government's investment. However, nbn co's commercial targets and the regulatory framework appear to ignore the social returns associated with the rollout and use of the NBN by the Australian community. If the social returns were taken into account, this would allow for a reduction in nbn co's commercial targets and similarly lower returns through the regulatory framework. This in turn would allow for lower pricing by nbn co, leading to higher take-up of nbn services and greater social benefits.

2.3.2. Regional customers could be forced to pay more than their metro counterparts for a poorer quality of service

Telstra remains concerned that the current nbn co pricing structure will disadvantage regional customers. The fixed-line bundles that nbn co introduced in May 2018 do not extend to Fixed Wireless services, yet a fundamental principle of the NBN is that nbn co's pricing should not discriminate based on technology.¹² Customers do not choose the technology that nbn co uses to service their home or business and customers should not be discriminated against because of a technology choice made by nbn co.

nbn co is currently considering its pricing approach for Fixed Wireless services. We believe that the pricing approach adopted by nbn co must support the objective of the Government and nbn co to reduce the digital divide and note that a recent economic study by nbn co points to the benefits of the NBN in encouraging economic activity and business growth¹³. Telstra also notes that the Regional Broadband Scheme is being introduced to transparently fund the cross subsidy from nbn co's fixed line services to fixed wireless and satellite services.¹⁴

2.4. nbn co's Fixed Wireless offering does not meet customer expectations

It appears that nbn co has not provisioned sufficient capacity for its nbn Fixed Wireless network to provide adequate, let alone competitive, services to regional customers in some cases. nbn co's target appears to be for Fixed Wireless cells to perform at greater than 6 Mbps average throughput during busy hour,¹⁵ but this is materially below the maximum attainable speed on fixed wireless connections generally and the maximum speeds advertised. In that respect neither RSPs nor end users get what they pay for.

Legacy technologies offer a similar experience to nbn co Fixed Wireless, making nbn co Fixed Wireless products no more attractive for customers, and in some cases less attractive. Our measurements indicate that Telstra customers on nbn co Fixed Wireless 25/5 Mbps have received a busy hour minimum speed of 10 Mbps (measured in accordance with the ACCC's August 2017 broadband speed claim guidance) in the last four months. This is comparable to the performance of Telstra's ADSL product offered in regional areas. In addition to this, the current fair use policy¹⁶ on nbn co Fixed Wireless of 200GB per month is not sufficient compared with in-market fixed line offerings. The service and performance issues with nbn co Fixed Wireless are detrimental for regional and rural Australia, already resulting in lower NBN take-up and greater risk of substitution.

¹² https://www.nbnco.com.au/sell-nbn-services/products-services-pricing/our-pricing-approach.html

¹³ http://www.connectingaustralia.com.au/?utm_source=vanity&utm_medium=vanity%20url&utm_campaign=connectingaustralia

¹⁴ https://www.communications.gov.au/documents/regional-broadband-scheme

¹⁵ <u>https://www.itnews.com.au/news/nbn-co-fixes-wireless-when-users-go-below-3mbps-peak-485295</u>

¹⁶ <u>nbn Ethernet Product Module Wholesale Broadband Agreement, Fair Use Policy</u>



In order to provide a general view on the extent of congestion issues currently impacting nbn co Fixed Wireless network, we note that our complaints data indicates that Fixed Wireless customers are 29 oper % mtre likely to lodge an internal speed complaint versus customers on other nbn co technology types, and approximately 148 per cent more likely to lodge a TIO complaint.

As an interim measure, and for a limited amount of time, we propose that nbn co should build and price a product which is specifically designed within the current limitations of the Fixed Wireless network. nbn co should be clear about what its Fixed Wireless product is capable of in the face of customer expectations set by what nbn co's fixed broadband services are capable of, including unlimited data and the ability to access entertainment services on multiple screens concurrently. A product which reflects the actual speeds attainable would set realistic customer expectations and mitigate customer concerns until sufficient capacity is provisioned to lift the experience on the Fixed Wireless network up to that seen on nbn co's fixed line network.

2.5. USO Reform and Telstra's copper network

2.5.1. The Universal Service Guarantee policy

The Government has announced a Universal Service Guarantee (USG) policy that would extend the current voice-only Universal Service Obligation (USO) to voice and broadband by leveraging the existing NBN commitment to provide a broadband service to any premises in Australia. Rather than run two subsidised networks side-by-side (one each for voice and broadband), the NBN would be used to deliver both voice and broadband services wherever possible, saving on taxpayer and customer costs.

It is yet to be seen whether a USG is feasible, but there are several reasons to be positive:

- There is an obvious global transition from legacy circuit-switched voice to Voice over IP (VoIP) technology driven by the far greater efficiency, flexibility and performance of VoIP. As the NBN is fundamentally an IP network, it should be well-placed to carry high-quality VoIP services to end users, and indeed nbn co already does so across its active footprint.
- Legacy circuit-switched voice services provided over copper networks will be retired in the medium term as the global transition to VoIP results in diminishing capacity to maintain legacy networks. It would be irresponsible not to actively manage this transition to ensure it is done smoothly, as the USG seeks to do, rather than delaying until the transition costs are high.
- Although under the USG the NBN will be the connection provider of last resort, an increasing number of alternative networks are providing services commercially to regional customers, ensuring that competition is strong and the individual needs of different customer cohorts are catered for. This is a fundamental change from the single copper network of the past.

One of the alternative networks providing services to rural customers is Telstra's mobile network. Our increasing ability to do so is a product of the strength of infrastructure-based competition in the national mobile market, which itself has been encouraged by appropriate policy settings over the long term. It is critical that the promotion of infrastructure investment be maintained under any USG policy (see also section 3.14).

2.5.2. Telstra's copper network in regional areas

Although copper network voice services are of diminishing relevance, Telstra takes seriously its obligation to ensure the copper network is well maintained and that voice service faults are dealt with



promptly. We also have an obligation under our contract with the Government for the delivery of USO services to maintain most copper network connections in the NBN fixed-line footprint.

Under the Customer Service Guarantee (CSG) framework, we are required to repair copper phone line faults within two working days in major rural and minor rural areas, and within three working days in remote areas. Where we fail to meet the timeframe, we pay compensation to the customer. Separately we are required to meet a benchmark of 90 per cent of faults repaired within the prescribed timeframes within each area. Since the last RTIRC report we have consistently met, and even exceeded, this benchmark.

	Benchmark	FY13	FY14	FY15	FY16	FY17
Urban Connections	90%	88.6%	91.7%	94.5%	90.9%	94.4%
Major Rural Connections	90%	91.6%	95.0%	95.8%	95.1%	95.0%
Minor Rural Connections	90%	90.4%	94.5%	95.2%	92.9%	94.1%
Remote Connections	90%	89.0%	95.1%	93%	92.6%	92.6%
In-place Connections	90%	93.8%	95.6%	95.8%	94.3%	96.6%
Urban Restorations	90%	90.6%	92.5%	93.4%	91.5%	93.3%
Rural Restorations	90%	91.7%	92.8%	93.4%	92.0%	92.1%
Remote Restorations	90%	92.3%	92.5%	95.2%	92.6%	92.5%
Combined Appointments	90%	97.3%	96.7%	96.7%	96.3%	96.2%

Table 1 – CSG Benchmark data FY13-FY18¹⁷

The Network Reliability Framework (NRF) Level 1 measures the reliability of Telstra's fixed voice network based on the faults experienced on services subject to the CSG, both nationally and across 44 metropolitan and regional areas, on a month-by-month basis. There are two measures for each area: percentage of CSG services with no faults in the month, and the average service availability for CSG services in the month.

In the month of June 2018, the percentage of services nationally with no faults was 98.54%, and the average service availability was 98.89%. The data for each field service area is available from our website¹⁸. In June 2018 there were no areas with less than 96% of CSG services without fault in the month (most recorded 98% or above) and none in which there was less than 99% service availability (and most recorded close to 100%).

¹⁷ Telstra summary of results reported to the ACMA

¹⁸ https://www.telstra.com.au/consumer-advice/customer-service/network-reliability



	CSG Services with No Faults	Average Service Availability
June 2017	98.52%	99.82%
July 2017	98.66%	99.80%
August 2017	98.58%	99.84%
September 2017	98.68%	99.83%
October 2017	98.56%	99.82%
November 2017	98.38%	99.82%
December 2017	98.33%	99.81%
January 2018	98.23%	99.79%
February 2018	98.17%	99.80%
March 2018	98.32%	98.82%
April 2018	98.59%	99.85%
May 2018	98.52%	99.89%
June 2018	98.54%	98.89%

Table 2 – Network Reliability Framework (Level 1) National – June 2017 to June 2018¹⁹

Table 3 – Network Reliability Framework (Level 1) National – month of June, 2012 – 2018²⁰

	CSG Services with No Faults	Average Service Availability
June 2012	98.46%	99.87%
June 2013	98.56%	99.82%
June 2104	98.49%	99.87%
June 2015	98.18%	99.73%
June 2016	98.35%	99.82%
June 2017	98.52%	99.82%

https://www.telstra.com.au/consumer-advice/customer-service/network-reliability
 https://www.acma.gov.au/-/media/Research-and-Analysis/Report/pdf/Communications-report-2016-17-pdf.pdf?la=en



03 Discussion questions

3.1. What are the main barriers to people in regional communities increasing their use of digital technologies and possible solutions for overcoming these barriers?

3.1.1. Findings from the Australian Digital Inclusion Index 2017

The Australian Digital Inclusion Index 2017²¹ shows that geography plays a critical role in the uneven distribution of digital inclusion in Australia. The data reveals significant differences between rural and urban areas. This 'Capital–Country gap' is evident across all three elements of digital inclusion – Access, Affordability, and Digital Ability. The Access gap is narrowing each year, with the 2017 Index report indicating emerging evidence that the rollout of nbn infrastructure is linked to improvements in Access, particularly in regards to data allowances. However, both affordability and digital skills remain key barriers for people in regional communities. Lower levels of digital inclusion are also related to lower levels of education, employment and income, and this is particularly pertinent for some who work in the agricultural sector, along with people with disability, older Australians and Indigenous Australians.

Improving Digital Ability needs to be a priority for policy makers. Attitudes, along with lack of digital skills and confidence, are key barriers to the take up and use of digital technologies, especially for older Australians. Geography also plays a role. The 2017 Index reveals a 7.5 point difference between Digital Ability Index scores for capital cities and rural areas. It is important that people understand the increasing relevance and value of digital technology to their work and life, in particular where financial investment may be required. Business, the education sector, community groups and Government need to collaborate and cooperate to address these gaps in ability. Government also needs to provide national impetus, coordination and funding. Given the variety of factors that can impact digital inclusion, place based responses are crucial in tackling the geographic and social challenges of digital inclusion.

Please note, the Australian Digital Inclusion Index 2018 will be released on 28 August 2018 and will be available on the ADII website: <u>https://digitalinclusionindex.org.au/</u>.

3.1.2. Government, private and community partnerships

Australia is increasingly connected, more and more services are delivered digitally offering convenience and value for both users and providers. At the same time it is increasingly important to ensure that everyone has the means to access these services, by providing education and access to segments of society that require assistance.

One of the challenges in delivering digital inclusion initiatives is how to reach, at scale, excluded communities and individuals who are not already online. At Telstra we partner with on-the-ground community organisations to build on existing programs to access these communities and extend our reach. Where relevance and confidence are barriers, a more individually responsive approach is often needed – a 'just in time' not 'just in case' approach to education.

The Federal Government's Be Connected – Every Australian Online, an Australia-wide initiative aimed at empowering all Australians to thrive in a digital world, should be commended. The combination of online learning resources along with a network of community partners to help excluded community members to take the first steps to internet use is a positive step. We strongly encourage the

²¹ <u>https://digitalinclusionindex.org.au/</u>



Government to continue this work and consider supporting further initiatives targeting particularly excluded community members.

Collaboration and co-investment between government and business can be a cost-effective way of achieving scale in program delivery. The importance of strong commitment to partnership and cooperation is recognised in the Sustainable Development Goals, which the Australian Government and Telstra both support.

Telstra partners with the government and community sector to develop and deliver a wide range of digital inclusion programs to assist our most vulnerable customers and communities. Some relevant examples include:

- Ability older Australians: Partnering with state governments since 2014 to deliver the Tech Savvy Seniors program to help build the digital literacy of tens of thousands of older Australians (see case study).
- Ability Indigenous: a partnership between Telstra and the State Library of Queensland to help to build the digital skills and capability of Indigenous communities in 31 regional and remote locations in Queensland through Indigenous Knowledge Centres.
- Affordability vulnerable customers: Our Access for Everyone program helps people on low incomes or facing financial hardship to stay connected. We work with more than 2,000 community organisations across Australia that assist people in crisis to deliver these programs.
- Affordability children's education: in partnership with The Smith Family and The Salvation Army we piloted Telstra Internet for Kids' Education (TIKE) program in Tasmania this year. TIKE aims to support families' access to online education resources, providing affordable home internet services for low-income households with school age children.

Case Study – Tech Savvy Seniors

A large proportion of older Australians are not online, and therefore not able to enjoy the social and economic benefits of being connected.

Tech Savvy Seniors aims to help seniors, particularly those in regional areas, to get connected and participate in the online world, with the objective of increasing digital abilities, helping reduce social isolation, increasing access to government information and services via the internet, and improving awareness and resilience to online fraud and financial abuse. Seniors are able to participate in diverse training sessions, including how to use a computer, laptop, tablet and smartphones. The training offered is fun, hands-on, and designed to assist seniors with everyday online tasks relating to shopping, banking, business, communication and recreation.

We've partnered with State Governments to deliver Tech Savvy Seniors training in Queensland, New South Wales, Victoria and South Australia. We recently completed social return on investment (SROI) studies on the NSW and Victorian Tech Savvy Seniors programs delivered predominantly for culturally and linguistically diverse older Australians. Both achieved SROIs of more than \$3.60 for every \$1 invested and found that complete beginners felt their confidence in using technology increased by over 40 per cent after taking part in the program.



3.2. How are people in regional communities currently using their broadband service and how might they increase the benefits of using this technology?

Digital access in regional areas over the past three years has improved when it comes to learning, working and engaging, but there is a long way to go. While many regional businesses are thriving there is much work to be done around educating business owners about telecommunications products and their capability advantages.

In response to older Australians increasing their use of the internet faster than any other age group, Telstra's 'Tech Savvy Seniors' and 'Digital Ambassadors' programs are bridging the gap between technology demand and education. For regional and rural Australians to fully realise the benefits of using broadband technology, governments should consider how they can partner with other organisations to deliver similar education programs which could provide a coordinated response to the huge growth in demand for data, new technologies and infrastructure.

The appetite for technology is insatiable in regional communities. We know that just as quickly as new communities are brought online, the phone calls, downloading and streaming activity dramatically increases. More than 60 million calls have been made over the new 450 base stations we've built as part of the MBSP. More than 2,500 terabytes of data have been downloaded in areas receiving new and improved mobile coverage through the MBSP²².

3.3. What data-intensive activities are occurring in regional, rural and remote Australia? What digital technologies are needed for these?

The need for quality broadband in regional, rural, and remote Australia is growing rapidly as use cases evolve. For example, Telstra Consumer customers' data usage is growing at ~80% p.a.,²³ driven by increased streaming of TV/video/music (used by ~40% of regional customers), online video gaming (~30%), remote working (~9%), and online education (~7%).²⁴ These use cases increase reliance on a quality broadband service that is reliable, provides adequate data allowance, and has good speed and latency.

Various solutions exist for regional Australia but some are of lower quality which do not meet customer needs. Regional customers without access to nbn co's fixed line service will rely on nbn co Fixed Wireless, nbn co Satellite, or some form of non-nbn co solution such as ADSL, mobile, or satellite. These services have variable quality and with growing use cases such as Subscription Video On Demand and online video gaming necessitating a stable and high speed connection with minimal latency, can sometimes be inadequate.

Given changing customer behavior and use cases, nbn co Fixed Wireless and fixed mobile solutions offer the brightest prospects for the future.

 nbn co Fixed Wireless: Telstra's testing has shown that when adequate capacity is provisioned, nbn co Fixed Wireless provides a good user experience which meets existing and future needs of regional Australia. Telstra also provides nbn co Fixed Wireless customers with redundancy over Telstra's 4G network in the event of an NBN outage (currently ~94% of premises within the nbn co Fixed Wireless footprint fall within Telstra's 4G coverage and is growing).

²² <u>https://www.telstra.com.au/aboutus/media/media-releases/Remote-island-connected-as-Telstra-activates-450th-Mobile-Black-Spot-tower</u>

²³ Telstra Product analysis for FY17

²⁴ Roy Morgan Single Source (Australia), October 2017 – March 2018; Australians 14+ living in regional Australia n=2,422



- nbn co Satellite: Telstra currently does not offer Sky Muster as it has not met our customer experience standard due to poor performance in its initial rollout period. However, Telstra will consider offering Sky Muster services in future as nbn co improves its performance, reliability and capacity, subject to commercial considerations. Mobile network-delivered solutions will provide a good alternative to Sky Muster for many customers as mobile coverage and capacity increases, with further investment and the coming upgrade to 5G.
- Copper: the dominant copper broadband technology, ADSL, is aging with high maintenance requirements and worsening user experience over time, requiring escalating levels of support just to ensure we maintain customer service levels and meet our obligations (see also 2.5.2). Moreover, the growth in use cases which require higher upload speed (e.g. cloud-based applications, video conferencing, social media, 4K video, and increased number of connected devices) will soon render ADSL inadequate given its maximum upload speed of ~1Mbps.

3.4. How can regional businesses better utilise digital technologies to maximise economic benefits?

The prime example of a digital technology that is ripe for adoption in regional areas is the IoT, in which more and more smart, connected devices running on 4G networks are connected to the internet and able to talk to each other. The IoT ecosystem is available today and is being adopted by a growing number of business in Australia and around the world.

IoT connected devices collect information about patterns and processes in the way people, machines, equipment and instruments move through and interact with the world. Through the collection, aggregation and analysis of information, they enable smarter decisions and improvements to be made to things as varied as processes, procedures, and customer experience.

IoT and the associated technology is making almost everything more connected. It's helping do everything from tracking the location and movements of valuable tools and equipment, to managing and synchronising entire transport systems with the real time movement of passengers, to managing crops and livestock and linking their needs to local weather patterns, soil moisture and nutrients. See also section 2.2.

IoT is only one example of the growing application of technology in business. More broadly, the rapid rise of technology for business has been built on the following things:

- Software and applications easy to use, intuitive, accessible, subscription-based software and applications that can be integrated with other systems, improving business productivity and mobilising workforces.
- The cloud technology that is enabling businesses to capture, store and access information from any location with a suitable internet connection.
- Networks high-speed fixed, mobile and satellite networks that provide secure, reliable and accessible connectivity.
- Unified communications the convergence of voice, mobility and video that enables better business communication, collaboration and productivity.

In addition, Telstra is examining opportunities within the agri-business sector to further support pregate operations and optimisation. This includes enabling technology areas such as sensors, drones and machine automation which will power the 'connected farm' of the future. Availability and analysis of on-farm data provides new opportunities for areas such as yield management, remote sensing,



predictive analytics and automation. Relevant data sets can then be used for supply chain optimisation resulting in a more efficient and more profitable process.

Education is also vital if regional Australians are to make the most of the connectivity that is available to them. See also section 3.7.

3.5. What can be done to improve access to and uptake of telecommunications services in remote Indigenous communities?

If the benefits of digital technology are to be shared by Indigenous Australians, barriers to inclusion must first be identified and tackled. While access and affordability are clearly part of the picture, a person's Digital Ability also plays a key role in helping or hindering participation.

The Australian Digital Inclusion Index 2017²⁵ shows that Indigenous Australians living in urban and regional areas have low levels of digital inclusion, scoring below the national average on Access, Affordability and Digital Ability. The largest gap is in Affordability, where the score for Indigenous Australians (49.7) is 7.9 points below the national average (57.6). The prevalence of mobile-only connectivity amongst the Indigenous Australian population, which carry higher costs per gigabyte than fixed connections, contributes to this Affordability result.

In 2017, the Index team conducted a targeted digital inclusion survey in the remote Indigenous community of Ali Curung. The findings of this survey suggest that remoteness further diminishes digital inclusion for Indigenous Australians, particularly with regards to Access and Affordability.

The Index also highlights that Indigenous Australians score relatively highly on attitudes to digital technologies – meaning they tend to see technology as giving them greater control over their life; they're interested in being able to access the internet wherever they are; and they go out of their way to learn new things. That they are more likely than the general population to see digital technologies as a pathway to a better future suggests that digital capability programs specifically for Indigenous Australians may be beneficial and have a high rate of success.

Access and take up of telecommunications services can also be impacted by cyber safety concerns. RMIT's recently published Cyber Safety in Remote Aboriginal Communities research report²⁶ explores the cyber safety issues that are limiting some of the benefits of internet use for remote Indigenous communities. When people find it difficult to manage their online privacy, or find themselves in social conflict as a result of social media interactions, it can make them less willing to take up online opportunities. The report explores rules governing communication within kinship classificatory systems, social obligation to share devices and credit.

The preference for mobile devices and the conveniences of social media platforms go hand-in-hand with specific privacy-related issues, including identity violations and unauthorised access to financial accounts. In response, some individuals are choosing to avoid using certain services (such as online banking), while others are facing increased costs associated with data credit theft and the regular need to replace devices. Importantly, when cyber safety problems arise in remote communities the consequences can be serious and involve many people. In attempting to mediate conflict, some communities are choosing to shut down public Wi-Fi.

To improve access to and uptake of telecommunications services in remote Indigenous communities, we recommend:

²⁵ https://digitalinclusionindex.org.au/

²⁶ <u>http://apo.org.au/node/172076</u>



- Consideration be given to digital inclusion as a key commitment and measureable outcome in the refreshed Closing the Gap agenda with a program of research to measure and monitor digital inclusion specifically in remote Indigenous communities.
- Government support of proven effective and culturally appropriate community digital capability programs. The inDigiMOB program, a partnership between Telstra and the Indigenous Remote Communications Association, is one such example.
- Government support for meaningful community-based jobs in remote communities to support digital literacy and engagement.
- Support for shared community Wi-Fi access to nbn co Satellite services.
- An audit of essential service websites and online applications such as government services (including MyGov), banking, education, employment, justice and health services, with a view to ensuring these are optimised for mobile-devices and incur minimal data usage.
- Support of initiatives to address the particular cyber safety issues experienced by remote Indigenous communities.

3.6. Are there practical examples of how communications services can improve the wellbeing of people in remote Indigenous communities?

Digital inclusion is about using technology as a channel to improve skills, to enhance quality of life, to drive education and to promote economic wellbeing across all elements of society. The use of communications services and digital technologies enable people to manage their health and wellbeing, access education and services, organise their finances, and connect with family, friends and the world beyond. Access to the internet is increasingly recognised and considered as a human right, particularly in terms of the right to freedom of expression, democratic participation and in the redressing of structural disadvantage. For example, the 2015 *Dropping off the Edge* report²⁷ includes 'lack of Internet access' as one of 22 indicators of disadvantage.

Some specific examples of the impact of communications services and digital technologies are:

- Improved health outcomes for those needing access to specialist health care.
 - Telstra's partnership with the Northern Territory Government to build the National Telehealth Connection Service (NTCS) allowed remote Indigenous residents to access healthcare locally rather than to distant hospital locations. The NTCS pilot²⁸ in three sites (Tennant Creek, Katherine and Alice Springs) from July 2014 to September 2015 reduced Failure to Attend rates, delivered \$1.1million in savings associated with reduced travel costs and received a 100% satisfaction rate from patients.
 - Telstra Foundation funded the MJD Foundation to trial how people with MJD (a family of neuro-degenerative diseases which impacts Indigenous people) can use digital tablets to improve access to medical and therapeutic treatment and social inclusion. A keyboard prototype was developed to enable clients to communicate in both English and their native

²⁷ Vinson, T and Rawsthorne, M (2015). Dropping off the Edge: persistent communal disadvantage in Australia. Jesuit Social Services/Catholic Social Services Australia. Viewed at <u>http://k46cs13u1432b9asz49wnhcx-wpengine.netdna-ssl.com/wpcontent/uploads/0001_dote_2015.pdf</u> 4 July 2017

²⁸ <u>https://dcm.nt.gov.au/supporting-government/strategies-and-plans/publications/e-newsletters/developing-the-top-end/developing-the-top-end-march-2016/telehealth-trial</u>



Yolŋu language, enabling them to touch type to communicate with family, friends, medical & disability support staff and carers.

- Greater connection to country, culture and community through digital archiving and genealogy mapping technology as demonstrated by the *Tangentyere Family History Project* via inDigiMOB – a digital literacy partnership between Telstra and the Indigenous Remote Communications Association.
- Enhanced opportunities for individuals to participate in the digital economy. For example, seven Indigenous community residents who built digital skills and confidence through inDigiMOB are now employed as Digital Mentors for the program.
- Through a partnership between the National Centre of Indigenous Excellence (NCIE) and Telstra Foundation, the Indigenous Digital Excellence (IDX) Flint program provides hands-on workshops in digital technologies in 20 regional and remote communities. Learning how to use 3D printers, fly a drone, program and make their own robots, communities are seeing the potential of digital to engage their young people, preserve culture and local history and care for country.

3.7. What skills do people need to get the most from their digital technologies, and where can they learn these skills?

To get the most out of their digital technologies, people need the skills to find information, to transact, to problem solve, to stay safe (privacy and security), to engage and participate as well as to create, not just consume.

First and foremost though, people need the motivation and confidence to connect. Programs that support people to take the first steps are critical. At this early stage, people need confidence to engage and problem solve online, and need an approach that provides support that is relevant for the user. People also need to understand the value and benefits of engaging online and the relevance to their day to day lives – socially and economically.

Our experience is that addressing motivation and confidence is done best with face to face engagement and one on one or small group support. Initiatives such as Tech Savvy Seniors (see case study in 3.1.2), InDigiMOB, Deadly Digital Communities, Be Connected, and Go Digi all support this kind of community-based mentoring and learning. Local libraries are increasingly playing a role here. There are a number of small organisations that support the development of digital literacy for local communities, for example Leep in western Sydney, Good Things Foundation, HITNET, Project Rockit, and Infoxchange.

Rural women's organisations such as the Queensland Country Women's Association and Australian Women in Agriculture have also developed digital inclusion initiatives. These organisations have been particularly active in engaging their constituents in capacity-building programs and providing digital places for connection and collaboration.²⁹ The Isolated Children's Parents Association (ICPA) has long drawn attention to the key role of communications and now internet access to provide children of farmers in remote areas with equitable educational opportunities³⁰.

²⁹ For example, the National Rural Women's Coalition runs an e-leaders Advocacy & Influence program held in a virtual classroom and a closed Facebook group (NRWC, <u>www.nrwc.com.au</u>). The Queensland Women's Regional, Rural and Remote Network (QWRRRN) has partnered with the University of Southern Queensland and others to deliver the WIRE program, a series of workshops, webinars, start-up weekends and a forum focusing on digital business innovation (<u>https://www.wireprogram.com/</u>). ³⁰ Isolated Children's Parents' Association of Australia Inc. (2017). Submission to the Department of Education & Training Into the Independent Review into Regional, Rural and Remote Education.



Technology will be central, critical and ever evolving and young peoples' ability to harness it will be the critical factor to handle the digital disruptions to come and the jobs of the future. Telstra recognises the importance of helping future generations of digital innovators and problem solvers to build their digital capability. We believe young people now need more than just an understanding of how to use tech, they need to understand how to create with tech, do it safely and to thrive through this connection.

Through the Telstra Foundation, Telstra supports and invests in 21st century digital learning experiences. Our Digital Futures program supports young people to create with technology. We partner to deliver digital learning experiences including coding, flying drones, 3D printing, robotics, cyber safety and encouraging creativity in digital content production and problem solving. Telstra's Digital Futures partners work in schools, libraries and community groups across Australia, with a particular focus on regional, remote and other locations with low levels of digital inclusion.

3.8. Have you had ongoing issues affecting your satellite or fixed wireless broadband service? If so, how have you overcome these issues?

N/A

3.9. If you are in an area with access to the Sky Muster satellite service and you have not taken it up, why not?

N/A

3.10. What economic or social indicators could be used to guide investment to further improve mobile coverage?

The Australian Digital Inclusion Index 2017 identifies the significant difference between rural and urban areas across all three elements of digital inclusion – Access, Affordability, and Digital Ability. See section 3.1 for more detail.

To help address the accessibility challenge we established the Telstra Co-investment Program in 2017, to enable regional infrastructure that has high community value, but with limited commercial advantage, to be funded through a potential range of partners. Telstra's co-investment of \$100-200 million over four years provides considerable benefits for co-contributors, such as schools and councils, and their communities. It is based on a 50:50 contribution from external partners to progress co-investment projects, and offers scope for multi-party partnerships.

The Telstra Co-Investment Governance Committee (TCGC) has reviewed 26 proposals, with seven projects in build, and a further 14 proposals in the pipeline. The proposals put forward to TCGC must reflect the communities' placement on the Australia Digital Inclusion Index, and also considers factors such as:

- partnering opportunities that exist with other programs (e.g. Tech Savvy seniors, Cyber Safety, Indigenous Digital Literacy);
- benefits for entire communities rather than individuals or companies;
- investment that is difficult to justify under business as usual funding principles where multiple business cases are required for funding (e.g. geographic isolation or sparse population).



Case Study - Barcoo-Diamantina Fibre Link, Outback Queensland

Jointly funded by Telstra, the Federal and State Governments as well as the Barcoo and Diamantina Shire Councils, the \$22 million Barcoo-Diamantina Fibre Link project delivered both 4G coverage and faster ADSL to the remote outback Queensland communities of Bedourie, Birdsville, Windorah, Jundah and 4G coverage to Stonehenge.

This co-investment project provided an opportunity to bring the best technology available to the bush and connect some of the most remote regions in Queensland. It means local communities, councils, businesses, schools, police and health services are accessing the same, if not better, internet speeds as people in the city.

Plus, it was an altogether different experience for the 6,000 crowd at the iconic Birdsville Races in September 2017. For the first time, racegoers experienced Telstra's superfast 4GX coverage, backed by a new high capacity fibre connection to the town and a significant boost to Telstra's local network capacity. Racegoers were better able to share the famous outback event with friends and family more than ever before with about seven times more 4G data carried over Telstra's network during race weekend compared to 2016.

Case Study – Flinders Island, Tasmania

The Flinders Island network upgrade is a result of a nearly \$11 million investment jointly co-funded between Telstra, Flinders Island Council, Tasmanian Government and the Federal Government. This significant telecommunications project is underway on Flinders Island and will deliver fast mobile broadband and reliable fixed line internet services. It is expected to be completed in early 2019.

The project includes:

- An upgrade of transmission capacity between Launceston and Waterhouse (Tasmania).
- A new generation microwave radio system between Waterhouse and Flinders Island.
- A new 76 kilometre optical fibre link joining major population centres on Flinders Island.
- Two new generation microwave radio systems on Flinders Island.
- Upgrade four existing 3G mobile sites to superfast 4GX capability (Mt Tanner, Middle Patriarch, Hayes Hill, Vinegar Hill).
- Construction of four new 3G/4GX mobile base stations (Killecrankie, Palana, Blue Rocks, Cape Barron) to extend the reach of our mobile network to more island residents.
- A scalable network for other community communications services into the future, such as the local school, hospital, emergency services and Flinders Island Council.

When finished customers will be able to achieve download speeds across fixed and mobile internet comparable to mainland regional areas.

To assist the TCGC we have established state-based Regional Advisory Councils (RAC) to ensure the voice of rural and regional stakeholders is heard, appreciated and, where appropriate acted upon by Telstra. Comprising membership from a broad array of regional organisations (e.g. Country Women's Association, Isolated Children's Parents' Association, local government, agricultural organisations,



primary producers), they are co-chaired by a Telstra executive and an external stakeholder. One of the key functions of the RAC is to identify projects with strong social and economic advantages for local communities.

We believe network co-investment is the best way to deliver benefits for communities in regional and rural areas.

3.11. Is information readily available regarding how to use devices to improve mobile reception in areas with poor coverage? E.g. information about external antenna equipment?

3.11.1. Coverage Information

Telstra has been working to improve the information available to customers via our mobile coverage maps. In June 2018, our maps³¹ were updated to provide enhanced features, including:

- Predicted level of in-building coverage; and
- Future Mobile Coverage based on a rolling three-month investment plan.

The changes made to the mobile coverage maps were deployed using new technology, which not only provides enhanced features but provides for future updates to be made quickly. Intended future enhancements include the provision of Cat M1 IoT coverage. Telstra is also actively working with other mobile network operators (MNOs) via the Australian Mobile Telecommunications Association (AMTA) to improve the comparability of coverage maps, including the alignment of mapping terminology. Intended future enhancements include the provision of Cat M1 IoT coverage.

3.11.2. Improving engagement with regional and remote customers

The ACCC's Mobile Issues Forum earlier this year highlighted the need for Telstra to improve the way we communicate with regional and remote customers about products and services which can improve or extend their mobile coverage.

In response, we have made improvements to the Telstra Exchange <u>regional page</u>. The page now provides clear and relevant products and services information to regional and rural customers. We are also progressing a number of changes to product specific pages of particular interest to regional and rural consumers.

Telstra has also established a specialised team to manage enquiries from regional and rural customers. Over the past 12 months, we have made improvements to our call management system to identify why customers are calling us, and where customers are calling from. As a result, we are now able to redirect calls from customers who live more than 100km from a Telstra branded store to this specialised team which has received additional training on our regional product set. This service is available from 9am to 9pm AEST. There is no special number to call. All customers need to do is call us on 13 22 20 and the system will redirect the call.

This initiative is already having a substantial positive impact on the level of service we are able to provide to our more remote customers, whose post-interaction survey responses are 50 per cent more positive than those made by customers not directed to the specialised remote team, with a clear improvement in the number of issues resolved on the first call.

³¹ <u>https://www.telstra.com.au/coverage-networks/our-coverage</u>



3.12. What emerging digital services will be of most benefit to regional businesses and what are the data needs of these services?

The IoT is already having an impact in some parts of regional Australia via the 4G network, and this will be bolstered by the introduction of 5G. See section 2.2.

3.13. What broadband services are people using other than those available through the nbn?

Our individual regional customers are using a range of Telstra's retail and wholesale broadband services, including mobile and ADSL broadband services where available. Telstra also provides data services to our business, enterprise and wholesale customers delivered using a range of network access mediums (e.g. fibre, radio and satellite), including data services such as Telstra Internet Direct and other IP products via Telstra's fixed network in select coverage areas. Alternatives to the NBN and Telstra include regional or local fixed wireless operators and other operators targeting new developments with fixed line networks.

3.14. How can more competition be encouraged in the provision of broadband services in regional Australia?

The regional telecommunications market is strongly and increasingly competitive due to the combination of infrastructure competition between different network providers and retail competition over the NBN, which is still acquiring customers in regional areas. More can be done but we are on the right trajectory.

Infrastructure competition is strong because there are real alternatives to the NBN for customers whose needs are not met by its product constructs. This competition comes largely in the form of the wide variety of mobile network-delivered products and services from all three MNOs, but also from independent wireless and satellite network providers with the ability to tailor their business case to particular customer segments and needs.

It is vital that the regulatory settings that have encouraged strong mobile network investment in regional Australia continue to apply in the form of the existing rules that require MNOs to provide access to each other's infrastructure where it is hard to replicate (e.g. mobile towers and backhaul links) but leave them free to compete on the acquisition and deployment of other inputs to mobile services including spectrum, network equipment, core network elements and retail product constructs.

These settings were confirmed by the Australian Competition and Consumer Commission's recent decision not to mandate roaming between MNOs, which would have critically undermined the extremely strong infrastructure-based competition between MNOs in Australia. In turn this could have undermined the national pricing of mobile services, which delivers enormous benefits to regional customers – now more than ever since Telstra's launch of Unlimited and Peace of Mind data plans and similar launches by our competitors.³²

While there are mobile connectivity use cases, particularly in the agricultural sector, which will not be met in the immediate future, it is important to bear in mind that the economics of mobile expansion are not static. Over time new technologies are developed, costs decrease, and revenue opportunities increase, so that the economics are always changing and new opportunities for economic investment arise.

³² <u>https://exchange.telstra.com.au/goodbye-excess-data-charges/; https://exchange.telstra.com.au/unlimited-data-australias-best-mobile-network/</u>



At the retail level, competition is encouraged via the rollout of the wholesale-only NBN which creates a level playing field for fixed broadband service provision. Retail competition over the NBN would be even greater if the pricing and affordability problems evident on NBN Fixed Wireless and Satellite services were addressed, because it would make this market more attractive to customers and hence also retail providers. See section 2.3.

Retail competition in national mobile (including in regional areas) is already strong due to competition at the infrastructure level, but Telstra (and the industry more broadly) is taking steps to improve the way we communicate our offerings to customers so that they are in the best possible place to make informed decisions about the services they acquire. See section 3.11.



APPENDIX 1 – Telstra Regional Advisory Councils

Queensland Regiona	al Advisory Council
Bruce Scott (Co-Chair)	Former Member for Maranoa (QLD). Previously Deputy Leader of the National Party, Deputy Speaker of the Australian House of Representatives. President of the Queensland Merino Stud Sheep Breeders Association and Australian Association of Stud Merino Breeders.
Dalene Wray	Beef cattle producer. General Manager, OBE Organic.
Vonda Malone	Mayor, Torres Shire Council.
Stuart Armitage	President, Queensland Farmers Federation.
Georgie Somerset	Non-Executive Director, AgForce. Director, ABC Board.
Kim Hughes	President, Isolated Children & Parents Association QLD.
Julie McDonald	Major QLD cattle producer. Chief Financial Officer, MDH.
Bruce Scott	Mayor, Barcoo Shire Council.
Dr William Glasson AO	Consultant ophthalmologist. Former President of the Australian Medical Association.
NSW Regional Advis	sory Council
lan Donges (Co-Chair)	Previous President NSW Farmers and Vice-President National Farmers Federation.
Annette Turner	President, CWA NSW.
Brett Guthrey	Managing Director, Kathleen Haven Orchard. Chairman, NSW Farmers Horticulture Committee
Dan Cooper	Chairman Grains Trade, NSW Farmers Association. Chair, Agriculture Consultative Committee.
Jock Whittle	CEO, Paraway Pastoral. Previous CEO of Macquarie Pastoral Fund.
Kate Treweeke	President, ICPA NSW.
Katrina Humphries	Mayor, Moree Shire Council.
Matt Brand	CEO, NSW Farmers.
Paul Anderson	Manager, Costa Group.
Perin Davey	Rural Affairs Consultant, PD Strategy.
Stefanie Loader	Director, SeL Consultants Pty Ltd.
Western Australian I	Regional Advisory Council
Tim Shanahan (Co-Chair)	Former, CEO WA Chamber of Minerals and Energy, WA Local Government Authority and Royal Auto Club of WA.
Lynne Craigie	President, Shire of East Pilbara. President, WA Local Government Association.
Pat Walker	Executive General Manager, Royal Automobile Club WA. Previous Director General, Department of Indigenous Affairs.
Jennie Franceschi	Managing Director, Fresh Produce Alliance.
Kitty Prodonovich	Chair, Small Business Development Corporation. Chair, General Counsel of CCIWA. Member, Advisory Group of the Perth Aboriginal Workforce Development Centre.



Jolleen Hicks	Director, Aboriginal Insights.
Tash Johns	President, Isolated Children & Parents Association WA.
Angus Turner	Director, Lions Eye Institute. Associate Professor, UWA.
Sue Middleton	Major citrus grower. Chair National Landcare Advisory Committee. Board member, Grains Research and Development Corporation, Landcorp.



APPENDIX 2 – Telstra Mobile Black Spot Program sites

The following Mobile Black Spots Program site data are published by the Federal Government.³³

Site Name	MBSP Site ID	Postcode	State	Status
Abercorn	MBSP2-QLD-001	4627	Queensland	Complete
Abercrombie Road, Paling Yards	MBSP-NSW-001	2787	New South Wales	Not complete
Abergowerie	MBSP-QLD-001	4850	Queensland	Complete
Adavale	MBSP-QLD-002	4474	Queensland	Complete
Ajana	MBSP-WA-001	6532	Western Australia	Complete
Albany-Lake Grace Road	MBSP2-WA-001	6343	Western Australia	Complete
Aldersyde	MBSP2-WA-002	6306	Western Australia	Complete
Amata	MBSP-SA-001	872	South Australia	Complete
Ancona	MBSP-VIC-001	3715	Victoria	Complete
Anglers Reach	MBSP-NSW-002	2629	New South Wales	Not complete
Apollo Bay	MBSP-VIC-002	3233	Victoria	Complete
Araluen	MBSP-NSW-003	2622	New South Wales	Complete
Arawata	MBSP-VIC-003	3951	Victoria	Complete
Archerton	MBSP-VIC-004	3723	Victoria	Complete
Ardath	MBSP2-WA-004	6419	Western Australia	Complete
Armstrong Road, Boscabel	MBSP-WA-002	6394	Western Australia	Complete
Ashbourne	MBSPPL-SA-01	5157	South Australia	Not complete
Austins Hill	MBSP-VIC-005	3870	Victoria	Complete
Avonside	MBSP-NSW-005	2628	New South Wales	Complete
Ayton	MBSP2-QLD-003	4895	Queensland	Complete
Babyl Creek	MBSP-NSW-006	2470	New South Wales	Complete
Badgebup	MBSP-WA-003	6317	Western Australia	Complete
Balala	MBSP-NSW-007	2358	New South Wales	Complete
Baldersleigh	MBSP2-NSW-002	2365	New South Wales	Complete
Baldersleigh	MBSPPL-NSW-01	2365	New South Wales	Not complete
Ballimore	MBSP2-NSW-003	2830	New South Wales	Complete
Bally Bally	MBSP2-WA-005	6304	Western Australia	Complete
Barkly Highway, between Mount Isa and Camooweal B	MBSP-QLD-004	4825	Queensland	Complete
Barongarook	MBSP-VIC-006	3249	Victoria	Complete
Barragga Bay	MBSP2-NSW-004	2546	New South Wales	Not complete
Barry	MBSP-NSW-009	2340	New South Wales	Complete

³³ <u>https://data.gov.au/dataset/mobile-black-spot-programme-funded-base-stations; https://data.gov.au/dataset/mobile-black-spot-programme-round2-funded-base-stations; https://www.communications.gov.au/documents/mobile-black-spot-program-prioritylocations</u>



Site Name	MBSP Site ID	Postcode	State	Status
Barwon Downs	MBSP-VIC-007	3243	Victoria	Not complete
Baudin	MBSP-WA-004	6284	Western Australia	Complete
Beachmere	MBSPPL-QLD-02	4510	Queensland	Not complete
Beacon	MBSP-WA-005	6472	Western Australia	Complete
Beaconsfield Upper	MBSPPL-VIC-03	3808	Victoria	Not complete
Beaumont	MBSP-WA-006	6450	Western Australia	Complete
Bedgerebong	MBSP-NSW-010	2871	New South Wales	Complete
Beechworth-Wodonga Road	MBSP2-VIC-003	3688	Victoria	Complete
Beedelup East	MBSP-WA-007	6260	Western Australia	Complete
Beerwah	MBSPPL-QLD-03	4519	Queensland	Not complete
Belli Park	MBSP-QLD-006	4562	Queensland	Complete
Bellthorpe Range Road	MBSP2-QLD-009	4514	Queensland	Complete
Belmont	MBSPPL-QLD-04	4153	Queensland	Not complete
Belyando Service Station	MBSP2-QLD-010	4721	Queensland	Complete
Benambra	MBSP-VIC-008	3900	Victoria	Complete
Benloch	MBSP2-VIC-005	3435	Victoria	Complete
Bentley	MBSP-NSW-011	2480	New South Wales	Complete
Bethanga	MBSP-VIC-009	3691	Victoria	Complete
Bickley	MBSPPL-WA-01	6076	Western Australia	Not complete
Binalong	MBSP-NSW-013	2584	New South Wales	Complete
Bindoon West	MBSP-WA-008	6502	Western Australia	Not complete
Birregurra	MBSPPL-VIC-05	3242	Victoria	Not complete
Blackstone Heights	MBSPPL-TAS-02	7250	Tasmania	Not complete
Blackwood	MBSP-VIC-010	3458	Victoria	Complete
Blue Mountains National Park South	MBSP-NSW-014	2570	New South Wales	Complete
Bodalla	MBSP-NSW-015	2545	New South Wales	Complete
Bogantungan - Willows	MBSP-QLD-007	4702	Queensland	Complete
Bogee	MBSP-NSW-016	2849	New South Wales	Complete
Bombala	MBSPPL-NSW-02	2632	New South Wales	Not complete
Bonalbo A	MBSP-NSW-017	2469	New South Wales	Complete
Bonang	MBSP-VIC-011	3888	Victoria	Complete
Bonshaw	MBSP-NSW-019	2361	New South Wales	Complete
Boolathana	MBSP-WA-009	6701	Western Australia	Not complete
Boolite	MBSP-VIC-012	3480	Victoria	Complete
Boonah Rathdowney Road, between Boonah and Rathdowney	MBSP-QLD-008	4310	Queensland	Complete
Borden	MBSP-WA-010	6338	Western Australia	Complete
Bowen Development Road	MBSP2-QLD-013	4804	Queensland	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Bowen Developmental Road, between Bowen and Collinsville	MBSP-QLD-009	4805	Queensland	Complete
Bradys Lake	MBSP2-TAS-001	7140	Tasmania	Complete
Broad Arrow	MBSP2-WA-007	6431	Western Australia	Complete
Broadford	MBSP-VIC-013	3658	Victoria	Complete
Brooklyn/Dangar Island	MBSPPL-NSW-03	2083	New South Wales	Not complete
Broomehill Village	MBSP-WA-011	6318	Western Australia	Complete
Brooms Head	MBSP-NSW-020	2463	New South Wales	Not complete
Висса	MBSP-QLD-011	4670	Queensland	Complete
Buchan South	MBSP-VIC-014	3885	Victoria	Complete
Buffalo River	MBSP-VIC-015	3737	Victoria	Complete
Bullara	MBSP-WA-012	6707	Western Australia	Complete
Bullarto	MBSP-VIC-016	3461	Victoria	Complete
Bullfinch	MBSP2-WA-008	6484	Western Australia	Complete
Bullo Developmental Road	MBSP2-QLD-014	4490	Queensland	Complete
Bullsbrook	MBSPPL-WA-02	6084	Western Australia	Not complete
Bulyee	MBSP2-WA-009	6306	Western Australia	Complete
Bundoran Road	MBSP2-QLD-015	4487	Queensland	Complete
Bungundarra	MBSP2-QLD-016	4703	Queensland	Not complete
Bunjil	MBSP-WA-013	6623	Western Australia	Complete
Bunnaloo	MBSP-NSW-023	2731	New South Wales	Complete
Burbank	MBSPPL-QLD-05	4156	Queensland	Not complete
Burke and Wills Roadhouse	MBSP2-QLD-018	4824	Queensland	Complete
Burnett Highway, between Rockhampton and Biloela	MBSP-QLD-012	4702	Queensland	Complete
Burracoppin Road, Cramphorne	MBSP-WA-014	6420	Western Australia	Complete
Burringbar	MBSP-NSW-024	2483	New South Wales	Complete
Burrumbuttock	MBSP-NSW-025	2642	New South Wales	Complete
Butchers Creek	MBSP-QLD-013	4885	Queensland	Complete
Butchers Ridge	MBSP-VIC-017	3885	Victoria	Complete
Bute/Alford	MBSPPL-SA-02	5555	South Australia	Not complete
Buxton	MBSP-NSW-026	2571	New South Wales	Not complete
Byabarra-Bagnoo Road	MBSP2-NSW-006	2446	New South Wales	Complete
Bynoe	MBSP2-NT-003	822	Northern Territory	Complete
Camboon	MBSP-NSW-027	2849	New South Wales	Not complete
Cape Bridgewater	MBSP-VIC-018	3305	Victoria	Not complete
Cape Cuvier	MBSP-WA-015	6701	Western Australia	Not complete
Cape Otway	MBSP-VIC-019	3233	Victoria	Complete
Cape Range	MBSP-WA-016	6707	Western Australia	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Capertee	MBSP-NSW-028	2846	New South Wales	Complete
Capricorn Highway, between Alpha and Willows	MBSP-QLD-015	4724	Queensland	Complete
Cardabia	MBSP-WA-017	6701	Western Australia	Complete
Carlisle River	MBSP-VIC-020	3239	Victoria	Complete
Carnamah East	MBSP-WA-018	6623	Western Australia	Complete
Carrajung Lower	MBSP-VIC-021	3844	Victoria	Complete
Carwoola	MBSPPL-NSW-04	2620	New South Wales	Not complete
Cashmere	MBSPPL-QLD-06	4500	Queensland	Not complete
Cave Spring	MBSP-WA-019	6743	Western Australia	Complete
Cedar Creek	MBSPPL-QLD-07-B	4207	Queensland	Not complete
Cedar Vale	MBSP2-QLD-022	4285	Queensland	Complete
Central Tilba	MBSP-NSW-031	2546	New South Wales	Complete
Charleroi	MBSP-VIC-113	3695	Victoria	Not complete
Chester Pass Road, Toolbrunup	MBSP-WA-020	6324	Western Australia	Complete
Chetwynd A	MBSP-VIC-022	3312	Victoria	Complete
Chetwynd B	MBSP-VIC-023	3312	Victoria	Complete
Cheviot Hills Road	MBSP2-WA-011	6317	Western Australia	Complete
Chidlow	MBSPPL-WA-03	6556	Western Australia	Not complete
Chinkapook	MBSP-VIC-024	3546	Victoria	Complete
Chinner Road	MBSP2-NT-005	822	Northern Territory	Complete
Chittering	MBSP-WA-021	6084	Western Australia	Complete
Chum Creek	MBSPPL-VIC-06	3777	Victoria	Not complete
Clarence	MBSP-NSW-032	2790	New South Wales	Not complete
Clarke Creek	MBSP-QLD-016	4705	Queensland	Complete
Clermont	MBSPPL-QLD-09	4723	Queensland	Not complete
Clunes	MBSP-NSW-033	2480	New South Wales	Complete
Clyde Mountain	MBSPPL-NSW-05	2536	New South Wales	Not complete
Coalstoun Lakes	MBSP-QLD-017	4621	Queensland	Complete
Coen Airport	MBSP-QLD-018	4871	Queensland	Complete
Coffee Camp	MBSP-NSW-035	2480	New South Wales	Complete
Colo Heights	MBSP-NSW-036	2756	New South Wales	Complete
Comboyne A	MBSP-NSW-037	2429	New South Wales	Complete
Comboyne B	MBSP-NSW-038	2429	New South Wales	Complete
Connewirricoo	MBSP-VIC-025	3318	Victoria	Complete
Conto's Campsite	MBSP2-WA-012	6286	Western Australia	Not complete
Coomberdale	MBSP-WA-022	6512	Western Australia	Complete
Coondle	MBSP2-WA-013	6566	Western Australia	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Copeton Dam	MBSPPL-NSW-06	2360	New South Wales	Not complete
Copmanhurst	MBSP-NSW-039	2460	New South Wales	Complete
Cramps Bay	MBSP-TAS-006	7030	Tasmania	Complete
Crosslands Reserve	MBSPPL-NSW-07	2077	New South Wales	Not complete
Crows Nest	MBSP-QLD-020	4355	Queensland	Complete
Cuballing	MBSP-WA-024	6311	Western Australia	Complete
Cudgewa	MBSP-VIC-026	3705	Victoria	Complete
Culla	MBSP-VIC-027	3315	Victoria	Complete
Cundinup	MBSP-WA-025	6275	Western Australia	Not complete
Cungena	MBSP2-SA-004	5660	South Australia	Complete
Curramulka	MBSP-SA-002	5580	South Australia	Complete
Currumbin Creek Road	MBSP-QLD-021	4223	Queensland	Complete
Daintree/Cape Tribulation	MBSPPL-QLD-10	4873	Queensland	Not complete
Dalbeg	MBSP-QLD-022	4807	Queensland	Complete
Dalgety	MBSP-NSW-043	2628	New South Wales	Not complete
Dalton	MBSP-NSW-044	2581	New South Wales	Complete
Dalyup	MBSP-WA-026	6450	Western Australia	Complete
Dalyup North	MBSP-WA-027	6450	Western Australia	Complete
Danbulla	MBSP2-QLD-024	4872	Queensland	Not complete
Daniell Siding	MBSP2-WA-014	6445	Western Australia	Not complete
Darbys Falls	MBSP-NSW-045	2793	New South Wales	Complete
Dargo	MBSP2-VIC-007	3862	Victoria	Complete
Darlington	MBSP-QLD-023	4285	Queensland	Complete
Darnley Island	MBSP-QLD-024	4875	Queensland	Complete
Darradup	MBSP-WA-028	6275	Western Australia	Complete
Dartmouth	MBSP-VIC-028	3701	Victoria	Complete
Dawson Developmental Road	MBSPPL-QLD-11	4722	Queensland	Not complete
Dayboro	MBSPPL-QLD-12	4521	Queensland	Not complete
Deepwater	MBSP2-QLD-025	4674	Queensland	Complete
Delegate	MBSPPL-NSW-08	2633	New South Wales	Not complete
Denbarker	MBSP-WA-133	6324	Western Australia	Not complete
Deniliquin	MBSP-NSW-046	2710	New South Wales	Complete
Denver	MBSP-VIC-029	3461	Victoria	Complete
Dereel	MBSP-VIC-030	3352	Victoria	Complete
Devils River	MBSP-VIC-031	3714	Victoria	Complete
Devonport	MBSPPL-TAS-03	7310	Tasmania	Not complete
Diamantina Development Road	MBSP2-QLD-026	4480	Queensland	Complete
Digby	MBSP-VIC-032	3309	Victoria	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Dinninup	MBSP-WA-029	6244	Western Australia	Complete
Dirnaseer	MBSPPL-NSW-09	2666	New South Wales	Not complete
Dixons Creek	MBSP-VIC-033	3775	Victoria	Complete
Dooralong	MBSP-NSW-047	2259	New South Wales	Complete
Doyles Road, Kulin West	MBSP-WA-030	6375	Western Australia	Complete
Drake	MBSP-NSW-048	2469	New South Wales	Complete
Dulong	MBSP-QLD-026	4560	Queensland	Complete
Dumbalk	MBSP-VIC-034	3956	Victoria	Complete
Dumbalk North	MBSP-VIC-035	3956	Victoria	Complete
Dungowan	MBSP-NSW-049	2340	New South Wales	Complete
Durong	MBSP-QLD-027	4610	Queensland	Complete
Dwellingup South	MBSP-WA-031	6213	Western Australia	Complete
East Barrabup	MBSP-WA-032	6275	Western Australia	Complete
East Lynne	MBSPPL-NSW-10	2536	New South Wales	Complete
East Warburton	MBSP-VIC-036	3799	Victoria	Complete
East Yuna	MBSP-WA-033	6532	Western Australia	Complete
Eastbourne Road, Diamond Tree	MBSP-WA-034	6258	Western Australia	Complete
Eden Park	MBSP2-VIC-008	3757	Victoria	Not complete
Edi Upper	MBSP-VIC-037	3678	Victoria	Not complete
Eganstown	MBSP-VIC-038	3461	Victoria	Complete
Eganu	MBSP-WA-035	6515	Western Australia	Complete
Eggs And Bacon Bay	MBSP-TAS-007	7112	Tasmania	Complete
Elabbin	MBSP-WA-036	6490	Western Australia	Complete
Elands	MBSP-NSW-051	2429	New South Wales	Complete
Eldorado	MBSP-VIC-039	3746	Victoria	Complete
Elleker	MBSP-WA-037	6330	Western Australia	Complete
Elliott	MBSP-TAS-008	7325	Tasmania	Complete
Emu Park	MBSPPL-QLD-14	4710	Queensland	Not complete
Enochs Point	MBSP-VIC-040	3723	Victoria	Complete
Esk-Hampton Road	MBSP2-QLD-028	4312	Queensland	Complete
Ettrick	MBSP-NSW-053	2474	New South Wales	Complete
Eukey	MBSP-QLD-028	4380	Queensland	Complete
Eulo	MBSP-QLD-029	4491	Queensland	Complete
Farrants Hill	MBSP-NSW-055	2484	New South Wales	Complete
Ferguson Valley	MBSP-WA-038	6236	Western Australia	Complete
Fig Tree Hill	MBSPPL-NSW-11	2360	New South Wales	Not complete
Finke	MBSP-NT-001	872	Northern Territory	Not complete



Site Name	MBSP Site ID	Postcode	State	Status
Fisheries Road between Condingup and Neridup	MBSP-WA-039	6450	Western Australia	Complete
Flinders Highway	MBSP2-QLD-029	4822	Queensland	Complete
Flying Fish Point	MBSP-QLD-030	4860	Queensland	Not complete
Forsayth	MBSP-QLD-031	4871	Queensland	Complete
Francois Peron National Park	MBSP2-WA-020	6537	Western Australia	Not complete
Fregon	MBSP-SA-003	872	South Australia	Complete
Gargett	MBSP-QLD-032	4741	Queensland	Complete
Gawler	MBSP-TAS-009	7315	Tasmania	Complete
Gellibrand	MBSP-VIC-041	3239	Victoria	Complete
Gembrook	MBSPPL-VIC-07	3783	Victoria	Not complete
Gidgegannup	MBSP-WA-040	6083	Western Australia	Complete
Gilgering	MBSP-WA-041	6302	Western Australia	Complete
Girvan	MBSP2-NSW-011	2425	New South Wales	Complete
Glass House Mountains	MBSPPL-QLD-15	4518	Queensland	Not complete
Glastonbury	MBSP-QLD-033	4570	Queensland	Complete
Glenlyon	MBSP-VIC-043	3461	Victoria	Complete
Goldfields Highway, Kookynie	MBSP-WA-042	6431	Western Australia	Complete
Goldie	MBSP-VIC-112	3435	Victoria	Not complete
Goldsborough Valley	MBSP-QLD-034	4865	Queensland	Complete
Golspie	MBSP-NSW-057	2580	New South Wales	Complete
Goolma	MBSP-NSW-058	2852	New South Wales	Complete
Goomburra	MBSP2-QLD-030	4362	Queensland	Complete
Goongarrie	MBSP-WA-043	6436	Western Australia	Not complete
Gordonbrook	MBSP2-QLD-031	4610	Queensland	Complete
Gormandale	MBSP-VIC-044	3873	Victoria	Complete
Gosse/Stokes Bay	MBSPPL-SA-03	5223	South Australia	Not complete
Goughs Bay	MBSP-VIC-045	3723	Victoria	Complete
Granya	MBSP-VIC-046	3701	Victoria	Complete
Grass Patch East	MBSP-WA-044	6446	Western Australia	Complete
Grass Valley	MBSP-WA-045	6403	Western Australia	Complete
Grattai	MBSP-NSW-060	2850	New South Wales	Complete
Great Eastern Highway, between Carrabin and Bodallin	MBSP-WA-047	6424	Western Australia	Complete
Great Ocean Road	MBSP2-VIC-010	3221	Victoria	Not complete
Greater Beedelup National Park	MBSP2-WA-021	6260	Western Australia	Not complete
Greenvale	MBSP-QLD-035	4816	Queensland	Complete
Gregory	MBSP-QLD-036	4830	Queensland	Complete
Gregory Developmental Road A	MBSP2-QLD-032	4820	Queensland	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Gregory Developmental Road B	MBSP2-QLD-033	4820	Queensland	Complete
Gresford	MBSPPL-NSW-13	2311	New South Wales	Not complete
Grose Vale	MBSPPL-NSW-14	2753	New South Wales	Not complete
Guildford	MBSP-VIC-047	3451	Victoria	Complete
Gulf Developmental Road, between Georgetown and Croydon	MBSP-QLD-037	4871	Queensland	Complete
Gunbower	MBSPPL-VIC-08	3566	Victoria	Not complete
Gunns Plains	MBSPPL-TAS-04	7315	Tasmania	Not complete
Guys Hill	MBSPPL-VIC-09	3807	Victoria	Not complete
Haden-Maclagan Road	MBSP-QLD-038	4352	Queensland	Complete
Hamelin Bay	MBSP-WA-049	6288	Western Australia	Not complete
Hannaford Road	MBSP2-QLD-035	4406	Queensland	Complete
Hargraves	MBSP2-NSW-012	2850	New South Wales	Complete
Harms Lake	MBSP2-WA-022	6443	Western Australia	Complete
Harrow	MBSP-VIC-048	3317	Victoria	Complete
Havilah	MBSP-VIC-049	3737	Victoria	Complete
Hazeldene	MBSP-VIC-050	3658	Victoria	Complete
Hernani	MBSP-NSW-062	2453	New South Wales	Complete
Hickeys Creek	MBSP-NSW-063	2440	New South Wales	Complete
Highlands	MBSP-VIC-051	3660	Victoria	Complete
Highvale	MBSPPL-QLD-16	4520	Queensland	Not complete
Hillgrove	MBSP-NSW-064	2350	New South Wales	Complete
Holt Rock	MBSP2-WA-023	6355	Western Australia	Complete
Hordern Vale	MBSP2-VIC-011	3238	Victoria	Complete
Horrocks	MBSP-WA-050	6535	Western Australia	Complete
Howqua Inlet	MBSP-VIC-052	3723	Victoria	Complete
Huonbrook	MBSP2-NSW-040	2482	New South Wales	Not complete
Hutchinson Street	MBSP2-QLD-036	4895	Queensland	Not complete
Hyland Highway	MBSPPL-VIC-10	3844	Victoria	Not complete
Imanpa	MBSP-NT-002	872	Northern Territory	Not complete
Indulkana	MBSP-SA-004	872	South Australia	Complete
Inggarda	MBSP-WA-051	6701	Western Australia	Not complete
Injinoo	MBSP2-QLD-037	4876	Queensland	Not complete
Irvinebank	MBSP2-QLD-038	4887	Queensland	Complete
Jackson	MBSP-QLD-039	4426	Queensland	Complete
Jacup	MBSP-WA-052	6337	Western Australia	Complete
Jalbarragup	MBSP-WA-053	6275	Western Australia	Complete
Jangardup Road	MBSP2-WA-026	6260	Western Australia	Not complete



Site Name	MBSP Site ID	Postcode	State	Status
Jerrys Plains	MBSP-NSW-067	2330	New South Wales	Complete
Jiggi	MBSP-NSW-145	2480	New South Wales	Complete
Jobson Road	MBSP2-QLD-039	4677	Queensland	Complete
Julatten	MBSP-QLD-040	4871	Queensland	Not complete
Julimar	MBSP-WA-054	6567	Western Australia	Complete
Kadnook	MBSP-VIC-053	3318	Victoria	Complete
Kalangadoo	MBSPPL-SA-04	5278	South Australia	Not complete
Kalbarri Loop	MBSP-WA-055	6536	Western Australia	Complete
Kalgan	MBSP-WA-056	6330	Western Australia	Complete
Kalkee	MBSP-VIC-054	3401	Victoria	Complete
Kangaroo Valley	MBSPPL-NSW-15	2577	New South Wales	Not complete
Kanumbra	MBSP-VIC-055	3719	Victoria	Complete
Karana Downs	MBSPPL-QLD-17	4306	Queensland	Not complete
Katunga	MBSPPL-VIC-12	3640	Victoria	Not complete
Kawarren	MBSP-VIC-056	3249	Victoria	Complete
Kewell	MBSP-VIC-057	3390	Victoria	Complete
Kholo	MBSP2-QLD-040	4306	Queensland	Not complete
Killcare	MBSPPL-NSW-16	2257	New South Wales	Not complete
Killingworth	MBSP-VIC-058	3717	Victoria	Complete
Kin Kin	MBSP-QLD-041	4571	Queensland	Complete
Kinglake West	MBSP-VIC-059	3757	Victoria	Complete
Kings Plains	MBSP-NSW-068	2360	New South Wales	Complete
Kingstown	MBSPPL-NSW-17	2358	New South Wales	Not complete
Kioloa	MBSP-NSW-069	2539	New South Wales	Not complete
Kondut	MBSP2-WA-032	6605	Western Australia	Complete
Kongwak	MBSP-VIC-060	3951	Victoria	Complete
Konnongorring	MBSP2-WA-033	6603	Western Australia	Complete
Koolanooka	MBSP-WA-057	6623	Western Australia	Not complete
Koonorigan	MBSP-NSW-070	2480	New South Wales	Complete
Koreelah	MBSP2-NSW-014	2476	New South Wales	Complete
Korong Vale	MBSP-VIC-061	3520	Victoria	Complete
Koumala/Sarina Range	MBSPPL-QLD-18	4737	Queensland	Not complete
Kunghur	MBSP-NSW-072	2484	New South Wales	Complete
Kununoppin	MBSP-WA-058	6489	Western Australia	Complete
Kurrajong	MBSP-NSW-073	2758	New South Wales	Complete
Kybybolite	MBSPPL-SA-05	5262	South Australia	Not complete
Ladysmith	MBSP-NSW-074	2652	New South Wales	Complete
Lake Argyle	MBSP-WA-059	6743	Western Australia	Not complete



Site Name	MBSP Site ID	Postcode	State	Status
Lake Barrine	MBSP2-QLD-042	4884	Queensland	Not complete
Lalbert	MBSP-VIC-062	3542	Victoria	Complete
Lamington National Park Road	MBSP2-QLD-043	4275	Queensland	Not complete
Landsborough	MBSP-VIC-063	3384	Victoria	Complete
Landsborough Highway B	MBSP2-QLD-044	4478	Queensland	Complete
Landsborough Highway, between Blackall and Tambo	MBSP-QLD-043	4472	Queensland	Complete
Landsborough Highway, between Winton and Cloncurry	MBSP-QLD-044	4733	Queensland	Complete
Landsborough West	MBSP-VIC-064	3384	Victoria	Complete
Latham	MBSP-WA-060	6616	Western Australia	Complete
Leeuwin	MBSP-WA-062	6290	Western Australia	Not complete
Lemon Tree	MBSP-NSW-076	2259	New South Wales	Complete
Leonards Hill	MBSP-VIC-065	3461	Victoria	Complete
Long Pocket	MBSP-QLD-045	4850	Queensland	Complete
Lost River	MBSP2-NSW-015	2583	New South Wales	Complete
Lowden	MBSP-WA-063	6240	Western Australia	Complete
Loyetea	MBSP-TAS-013	7316	Tasmania	Complete
Lue	MBSP-NSW-078	2850	New South Wales	Complete
Lulworth	MBSP-TAS-014	7252	Tasmania	Complete
Lumeah	MBSP-WA-064	6395	Western Australia	Complete
Maaroom	MBSP2-QLD-045	4650	Queensland	Complete
Macks Creek	MBSP2-VIC-017	3971	Victoria	Complete
Maggea	MBSP2-SA-007	5311	South Australia	Complete
Maleny-Kenilworth Road, between Conondale and Kenilworth	MBSP-QLD-046	4574	Queensland	Complete
Manmanning	MBSP2-WA-034	6465	Western Australia	Complete
Mannus	MBSP-NSW-082	2642	New South Wales	Complete
Manypeaks	MBSP-WA-065	6328	Western Australia	Complete
Maranup	MBSP2-WA-035	6256	Western Australia	Complete
Marchagee	MBSP2-WA-036	6515	Western Australia	Complete
Marlborough	MBSP-QLD-047	4705	Queensland	Complete
Marnoo A	MBSP-VIC-067	3381	Victoria	Complete
Marnoo B	MBSP-VIC-068	3387	Victoria	Complete
Martinup Road	MBSP2-WA-037	6318	Western Australia	Complete
Maryborough Biggenden Road, between Brooweena and Maryborough	MBSP-QLD-048	4650	Queensland	Not complete
Maya North	MBSP-WA-066	6616	Western Australia	Complete
Mayfield	MBSP-NSW-083	2580	New South Wales	Complete
McKinlay	MBSP-QLD-049	4823	Queensland	Complete
McMahons Creek	MBSP2-VIC-018	3799	Victoria	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Meanarra Hill	MBSP-WA-067	6536	Western Australia	Complete
Megalong Valley	MBSPPL-NSW-18	2785	New South Wales	Not complete
Melrose	MBSP-TAS-016	7306	Tasmania	Complete
Mena Creek	MBSP2-QLD-048	4871	Queensland	Complete
Meribah	MBSP-SA-005	5311	South Australia	Complete
Meringandan	MBSPPL-QLD-19	4352	Queensland	Not complete
Merivale	MBSP-WA-068	6450	Western Australia	Complete
Merkanooka	MBSP-WA-069	6625	Western Australia	Complete
Merriwagga	MBSP-NSW-084	2652	New South Wales	Complete
Mimegarra	MBSP-WA-070	6507	Western Australia	Complete
Mimili	MBSP-SA-006	872	South Australia	Complete
Minilya	MBSP-WA-071	6701	Western Australia	Not complete
Minjilang	MBSP-NT-003	822	Northern Territory	Complete
Minyip	MBSP-VIC-069	3480	Victoria	Complete
Mirboo	MBSP-VIC-070	3871	Victoria	Complete
Mirranatwa	MBSP-VIC-071	3294	Victoria	Complete
Mogumber	MBSP-WA-072	6506	Western Australia	Complete
Mole Creek	MBSP-TAS-018	7304	Tasmania	Complete
Montacute	MBSP-SA-007	5134	South Australia	Not complete
Moonambel	MBSP-VIC-073	3478	Victoria	Complete
Moonie	MBSP-QLD-050	4406	Queensland	Complete
Moore	MBSP-QLD-051	4306	Queensland	Complete
Morangup	MBSP-WA-073	6083	Western Australia	Complete
Mount Burrell	MBSP2-NSW-016	2484	New South Wales	Not complete
Mount Carbine	MBSP2-QLD-049	4871	Queensland	Complete
Mount Chalmers Road, intersection of Sleipner Road and Mount Chalmers Road	MBSP-QLD-052	4702	Queensland	Complete
Mount Crosby	MBSPPL-QLD-21	4306	Queensland	Not complete
Mount Eccles	MBSP-VIC-074	3951	Victoria	Complete
Mount Evelyn	MBSPPL-VIC-13	3796	Victoria	Not complete
Mount Fox	MBSP2-QLD-050	4850	Queensland	Complete
Mount Hunter	MBSP-NSW-091	2570	New South Wales	Complete
Mount Lindesay Road	MBSP2-WA-040	6333	Western Australia	Complete
Mount Magnet South	MBSP2-WA-041	6638	Western Australia	Complete
Mount Mee	MBSP-QLD-053	4521	Queensland	Complete
Mount Ney	MBSP2-WA-042	6447	Western Australia	Complete
Mount Ossa	MBSPPL-QLD-22	4741	Queensland	Not complete
Mount Singleton	MBSP2-WA-043	6612	Western Australia	Not complete



Site Name	MBSP Site ID	Postcode	State	Status
Mount Sylvia	MBSP-QLD-054	4343	Queensland	Complete
Mount Tyson	MBSP2-QLD-051	4356	Queensland	Complete
Moyhu	MBSP-VIC-075	3732	Victoria	Complete
Mt Burdett	MBSP-WA-075	6447	Western Australia	Complete
Mt Frankland West	MBSP-WA-077	6398	Western Australia	Complete
Mt Gibson Highway	MBSP2-WA-046	6623	Western Australia	Not complete
Mt Liebig	MBSP-NT-004	872	Northern Territory	Not complete
Mt Madden	MBSP-WA-078	6356	Western Australia	Complete
Mulgildie	MBSP-QLD-055	4630	Queensland	Complete
Mumberkine	MBSP-WA-079	6401	Western Australia	Complete
Mumbil	MBSP-NSW-093	2820	New South Wales	Complete
Mundulla West	MBSP2-SA-010	5270	South Australia	Complete
Muntham	MBSP-VIC-076	3312	Victoria	Complete
Murringo	MBSP-NSW-094	2586	New South Wales	Complete
Musselroe Bay	MBSPPL-TAS-07	7264	Tasmania	Not complete
Myrrhee	MBSP-VIC-077	3732	Victoria	Complete
Nabawa	MBSP-WA-080	6532	Western Australia	Complete
Nammoona	MBSPPL-NSW-20	2470	New South Wales	Not complete
Nannup East	MBSP-WA-081	6275	Western Australia	Complete
Naraling	MBSP-WA-083	6532	Western Australia	Complete
Nareen	MBSP-VIC-078	3315	Victoria	Complete
Narracoota	MBSP2-WA-047	6642	Western Australia	Complete
Narrikup	MBSP-WA-084	6326	Western Australia	Complete
Nattai	MBSP-NSW-095	2570	New South Wales	Not complete
Needilup	MBSP2-WA-048	6336	Western Australia	Complete
Nelligen	MBSP-NSW-096	2536	New South Wales	Complete
Neridup	MBSP-WA-085	6450	Western Australia	Complete
Nerriga	MBSP-NSW-097	2622	New South Wales	Complete
Netherby	MBSP-VIC-079	3418	Victoria	Complete
Nethercote	MBSP-NSW-098	2549	New South Wales	Complete
Neville	MBSP-NSW-099	2799	New South Wales	Complete
New Beith	MBSP2-QLD-052	4124	Queensland	Not complete
Ngarutjara Homeland	MBSP-SA-008	872	South Australia	Complete
Niemur	MBSP2-NSW-020	2733	New South Wales	Complete
Noobijup	MBSP-WA-086	6396	Western Australia	Complete
Noonkanbah	MBSP-WA-087	6765	Western Australia	Complete
Nornalup	MBSP-WA-088	6333	Western Australia	Not complete
North Stradbroke Island	MBSPPL-QLD-23	4183	Queensland	Not complete



Site Name	MBSP Site ID	Postcode	State	Status
Numeralla	MBSP-NSW-102	2630	New South Wales	Complete
Nunamara	MBSP-TAS-019	7259	Tasmania	Complete
Nungarin	MBSP-WA-089	6490	Western Australia	Complete
Nymboida	MBSP-NSW-103	2460	New South Wales	Complete
Old Wagga Road South	MBSP2-NSW-022	2666	New South Wales	Complete
Omeo Highway	MBSP2-VIC-022	3701	Victoria	Complete
Ora Banda	MBSP2-WA-049	6431	Western Australia	Complete
Outtrim	MBSP-VIC-080	3951	Victoria	Complete
Pacific Haven	MBSPPL-QLD-24	4659	Queensland	Not complete
Palm Island	MBSPPL-QLD-25	4816	Queensland	Not complete
Paluma	MBSP2-QLD-053	4816	Queensland	Complete
Pantapin	MBSP2-WA-050	6384	Western Australia	Complete
Parkerville	MBSPPL-WA-04	6081	Western Australia	Not complete
Paruna	MBSP-SA-009	5311	South Australia	Complete
Pata	MBSP2-SA-013	5333	South Australia	Complete
Patchewollock	MBSP-VIC-081	3491	Victoria	Complete
Paterson	MBSP-NSW-106	2421	New South Wales	Complete
Paynes Find	MBSP2-WA-051	6612	Western Australia	Not complete
Peelwood Road	MBSP2-NSW-023	2583	New South Wales	Complete
Perillup	MBSP-WA-091	6324	Western Australia	Complete
Piawaning	MBSP2-WA-052	6572	Western Australia	Complete
Piesseville	MBSP2-WA-053	6315	Western Australia	Not complete
Pigeon Ponds	MBSP-VIC-082	3407	Victoria	Complete
Pilliga	MBSP-NSW-108	2388	New South Wales	Complete
Pindar	MBSP2-WA-054	6631	Western Australia	Complete
Pingaring Pederah Road, between Pingaring and Pederah	MBSP-WA-092	6357	Western Australia	Complete
Pinkett	MBSP2-NSW-024	2370	New South Wales	Complete
Pipalyatjara	MBSP-SA-010	872	South Australia	Complete
Pipers Creek	MBSP-VIC-083	3444	Victoria	Complete
Pithara	MBSP-WA-093	6608	Western Australia	Complete
Point Quobba	MBSP-WA-094	6701	Western Australia	Not complete
Pomona Kin Kin Road	MBSP2-QLD-055	4570	Queensland	Complete
Poona	MBSPPL-QLD-26	4650	Queensland	Not complete
Popanyinning	MBSP-WA-095	6309	Western Australia	Complete
Porongurup	MBSP-WA-096	6324	Western Australia	Complete
Port Moorowie	MBSP-SA-011	5576	South Australia	Complete
Porters Retreat	MBSP-NSW-110	2787	New South Wales	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Portland West	MBSP-VIC-084	3305	Victoria	Complete
Possum Creek	MBSP-NSW-111	2479	New South Wales	Complete
Pullagaroo RT	MBSP2-WA-055	6612	Western Australia	Complete
Quilpie, Diamantina Developmental Road	MBSP-QLD-056	4480	Queensland	Complete
Rainolli Road, Boyup Brook	MBSP-WA-132	6255	Western Australia	Not complete
Ramornie	MBSPPL-NSW-21	2460	New South Wales	Not complete
Rannes	MBSP-QLD-057	4702	Queensland	Complete
Ravensbourne	MBSP2-QLD-056	4352	Queensland	Complete
Ravensthorpe West	MBSP-WA-097	6346	Western Australia	Complete
Red Bluff	MBSP-WA-098	6701	Western Australia	Not complete
Red Hill	MBSPPL-VIC-14	3926	Victoria	Not complete
Reefton	MBSP2-VIC-024	3799	Victoria	Complete
Robertstown	MBSPPL-SA-06	5381	South Australia	Not complete
Rockley	MBSP-NSW-113	2795	New South Wales	Complete
Rocky Creek	MBSP-NSW-114	2371	New South Wales	Complete
Rosa Brook	MBSP-WA-099	6285	Western Australia	Complete
Rosa Glen	MBSP-WA-100	6285	Western Australia	Complete
Rossarden	MBSP-TAS-022	7213	Tasmania	Complete
Rowland Avenue	MBSP2-WA-059	6525	Western Australia	Not complete
Rules Beach	MBSPPL-QLD-27	4670	Queensland	Not complete
Ryansbrook	MBSP-WA-101	6395	Western Australia	Complete
Rye Park	MBSP2-NSW-025	2586	New South Wales	Complete
Sackville North	MBSP-NSW-115	2756	New South Wales	Complete
Saint Andrews	MBSP-VIC-085	3761	Victoria	Complete
Saint Leonards	MBSP-VIC-086	3223	Victoria	Not complete
Samford	MBSPPL-QLD-29	4520	Queensland	Not complete
Sandy Point	MBSP-VIC-087	3959	Victoria	Complete
Sarsfield	MBSP-VIC-088	3875	Victoria	Complete
Sawmill Settlement	MBSP-VIC-089	3723	Victoria	Complete
Scadden West	MBSP-WA-103	6447	Western Australia	Complete
Seabird	MBSP-WA-104	6042	Western Australia	Complete
Separation Creek	MBSP2-VIC-025	3221	Victoria	Not complete
Serpentine/Keysbrook	MBSPPL-WA-05	6126	Western Australia	Not complete
Shamrock Road	MBSP2-WA-060	6396	Western Australia	Complete
Sheep Hills	MBSP-VIC-090	3392	Victoria	Complete
Sheringa	MBSP2-SA-016	5607	South Australia	Complete
Sherwood	MBSP-NSW-117	2440	New South Wales	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Shoreham	MBSPPL-VIC-15	3929	Victoria	Not complete
Sisters Beach	MBSP-TAS-023	7321	Tasmania	Complete
Somerset Dam	MBSP-QLD-058	4312	Queensland	Complete
South Cascade	MBSP2-WA-061	6450	Western Australia	Complete
South Coast Highway, Peaceful Bay	MBSP-WA-105	6333	Western Australia	Not complete
South Riana	MBSP-TAS-024	7316	Tasmania	Complete
South Western Highway, between Broke and Walpole	MBSP-WA-106	6398	Western Australia	Complete
South Yelbini	MBSP2-WA-062	6485	Western Australia	Complete
South Yuna	MBSP-WA-107	6532	Western Australia	Complete
Speewah	MBSP-QLD-059	4881	Queensland	Complete
Stakewell	MBSP2-WA-063	6642	Western Australia	Not complete
Stanage Bay Road	MBSP2-QLD-058	4702	Queensland	Complete
Stanhope	MBSP-NSW-119	2330	New South Wales	Complete
Stanmore	MBSP2-QLD-059	4514	Queensland	Complete
Steiglitz	MBSP-VIC-091	3331	Victoria	Complete
Strickland Road	MBSP2-WA-064	6260	Western Australia	Not complete
Strzelecki	MBSP-VIC-092	3950	Victoria	Complete
Sturry Road, Cranbrook	MBSP-WA-108	6321	Western Australia	Complete
Sussex Inlet/Wandandian/Bewong	MBSPPL-NSW-22	2540	New South Wales	Not complete
Swan Valley	MBSPPL-WA-06	6063	Western Australia	Not complete
Swanwick	MBSP2-TAS-004	7215	Tasmania	Complete
Tabulam	MBSP-NSW-146	2469	New South Wales	Not complete
Tallangatta South	MBSP2-VIC-026	3701	Victoria	Complete
Tallangatta Valley	MBSP2-VIC-027	3701	Victoria	Complete
Tangambalanga	MBSP-VIC-093	3691	Victoria	Complete
Tansey	MBSP2-QLD-061	4601	Queensland	Complete
Targa	MBSP-TAS-027	7259	Tasmania	Complete
Tarin Rock	MBSP-WA-109	6353	Western Australia	Complete
Tarlo	MBSP-NSW-122	2580	New South Wales	Complete
Taroom	MBSPPL-QLD-30	4719	Queensland	Not complete
Tatong	MBSP-VIC-094	3673	Victoria	Complete
Taylor Bay	MBSP-VIC-095	3713	Victoria	Not complete
Taylors Arm	MBSP-NSW-123	2447	New South Wales	Complete
Temma	MBSP2-TAS-005	7330	Tasmania	Complete
Tenindewa Yuna Road	MBSP2-WA-065	6632	Western Australia	Complete
Tenterden	MBSP-WA-110	6322	Western Australia	Complete
The Channon	MBSP-NSW-124	2480	New South Wales	Complete



Site Name	MBSP Site ID	Postcode	State	Status
The Summit	MBSP2-QLD-062	4377	Queensland	Complete
Tincurrin	MBSP2-WA-066	6361	Western Australia	Complete
Tindale Road, Bow Bridge	MBSP-WA-111	6333	Western Australia	Complete
Tindale Road, Plantagenet	MBSP-WA-112	6397	Western Australia	Not complete
Tingoora	MBSP2-QLD-064	4608	Queensland	Complete
Tolmie	MBSP-VIC-096	3723	Victoria	Complete
Tomboye	MBSP-NSW-125	2622	New South Wales	Not complete
Tone Road	MBSP2-WA-069	6394	Western Australia	Complete
Tongio	MBSP-VIC-097	3898	Victoria	Complete
Toobeah	MBSP-QLD-060	4498	Queensland	Complete
Toolakea	MBSPPL-QLD-31	4818	Queensland	Not complete
Torrens Creek	MBSP-QLD-061	4816	Queensland	Complete
Towamba	MBSP-NSW-126	2550	New South Wales	Complete
Traralgon South	MBSP-VIC-111	3844	Victoria	Not complete
Trida	MBSP-VIC-098	3821	Victoria	Complete
Trunkey Creek	MBSP-NSW-127	2795	New South Wales	Complete
Ubobo	MBSP-QLD-062	4680	Queensland	Complete
Ucarty	MBSP-WA-113	6405	Western Australia	Complete
Undullah/Flagstone	MBSPPL-QLD-32	4285	Queensland	Not complete
Upper Brookfield	MBSP2-QLD-065	4069	Queensland	Not complete
Upper Chittering	MBSP-WA-114	6084	Western Australia	Complete
Upper Ryans Creek	MBSP-VIC-099	3675	Victoria	Complete
Upper Ulam Road	MBSPPL-QLD-33	4714	Queensland	Not complete
Urandangi	MBSP-QLD-063	4825	Queensland	Not complete
Urbenville	MBSP-NSW-129	2475	New South Wales	Not complete
Varley	MBSP-WA-115	6355	Western Australia	Complete
Vasse Hwy, Collins	MBSP-WA-116	6260	Western Australia	Complete
Victoria Valley	MBSP-VIC-100	3294	Victoria	Complete
Walcha Road	MBSP-NSW-131	2354	New South Wales	Not complete
Walhalla	MBSP2-VIC-028	3825	Victoria	Not complete
Wallace Rockhole	MBSP-NT-005	872	Northern Territory	Complete
Wallaloo East	MBSP-VIC-101	3381	Victoria	Complete
Wallup	MBSP-VIC-102	3401	Victoria	Complete
Wanganella	MBSP-NSW-132	2710	New South Wales	Complete
Wannamal South East	MBSP-WA-117	6505	Western Australia	Complete
Wantabadgery	MBSPPL-NSW-25	2650	New South Wales	Not complete
Waroona North	MBSP2-WA-070	6215	Western Australia	Complete
Warralakin	MBSP-WA-118	6421	Western Australia	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Warrego Highway	MBSP2-QLD-066	4470	Queensland	Complete
Warren National Park	MBSP2-WA-071	6260	Western Australia	Not complete
Warroo	MBSP-NSW-133	2871	New South Wales	Complete
Warroora	MBSP-WA-119	6701	Western Australia	Not complete
Wartook Valley	MBSP2-VIC-030	3401	Victoria	Complete
Watsonville	MBSP-QLD-064	4887	Queensland	Not complete
Wattle Camp	MBSP-QLD-065	4615	Queensland	Complete
Webbs Creek	MBSP-NSW-134	2775	New South Wales	Not complete
Wee Jasper	MBSP2-NSW-034	2582	New South Wales	Complete
Weipa	MBSPPL-QLD-34	4874	Queensland	Not complete
Wellington Mill	MBSP-WA-120	6236	Western Australia	Complete
Wendoree Park	MBSPPL-NSW-26	2250	New South Wales	Not complete
Wentworth	MBSP-NSW-136	2648	New South Wales	Complete
Werrimull	MBSP-VIC-104	3496	Victoria	Complete
West River	MBSP-WA-121	6346	Western Australia	Complete
West Tambellup	MBSP2-WA-072	6320	Western Australia	Complete
Westella	MBSP2-NSW-035	2831	New South Wales	Complete
Wherrol Flat	MBSP-NSW-138	2429	New South Wales	Complete
Whitefoord	MBSP-TAS-031	7120	Tasmania	Complete
Wide Bay Highway	MBSPPL-QLD-35	4600	Queensland	Not complete
Widgee	MBSP-QLD-066	4570	Queensland	Complete
William Bay Road	MBSP-WA-131	6333	Western Australia	Not complete
Windellama	MBSP-NSW-139	2580	New South Wales	Complete
Windera	MBSP2-QLD-070	4605	Queensland	Complete
Windeyer	MBSP-NSW-140	2850	New South Wales	Complete
Windy Harbour	MBSP-WA-122	6262	Western Australia	Complete
Winnejup	MBSP2-WA-073	6255	Western Australia	Complete
Wogerlin Hill	MBSP2-WA-074	6375	Western Australia	Complete
Womarden	MBSP-WA-123	6519	Western Australia	Complete
Wombelano	MBSP-VIC-105	3409	Victoria	Complete
Wondai Road	MBSP2-QLD-072	4410	Queensland	Complete
Wonga Beach	MBSPPL-QLD-37	4873	Queensland	Not complete
Wongamine	MBSP-WA-124	6401	Western Australia	Complete
Wongoondy Tardun Road	MBSP2-WA-075	6630	Western Australia	Complete
Woodhill	MBSP2-NSW-038	2535	New South Wales	Not complete
Woods Point	MBSP-VIC-106	3723	Victoria	Not complete
Woodwark	MBSP2-QLD-074	4802	Queensland	Not complete
Woogenellup	MBSP-WA-125	6324	Western Australia	Complete



Site Name	MBSP Site ID	Postcode	State	Status
Woolomin	MBSP-NSW-142	2340	New South Wales	Complete
Woolooga	MBSP-QLD-067	4570	Queensland	Complete
Wyong Creek	MBSP-NSW-143	2259	New South Wales	Complete
Yalboroo	MBSPPL-QLD-38	4741	Queensland	Not complete
Yallabatharra	MBSP-WA-126	6535	Western Australia	Complete
Yallallie	MBSP2-WA-076	6507	Western Australia	Complete
Yallingup East	MBSP-WA-127	6282	Western Australia	Complete
Yandanooka	MBSP-WA-128	6522	Western Australia	Complete
Yandeyarra	MBSP-WA-129	6760	Western Australia	Not complete
Yaraka	MBSP-QLD-068	4702	Queensland	Complete
Yarramalong	MBSP-NSW-144	2259	New South Wales	Complete
Yea	MBSP-VIC-107	3658	Victoria	Complete
Yealering	MBSP-WA-130	6372	Western Australia	Complete
Yellow Rock	MBSPPL-NSW-27	2777	New South Wales	Not complete
Yeodene	MBSP-VIC-108	3249	Victoria	Complete
Yeppoon	MBSPPL-QLD-39	4703	Queensland	Not complete
Yeriminup Road	MBSP2-WA-077	6396	Western Australia	Complete
Yerra	MBSP2-QLD-076	4650	Queensland	Complete
Yoganup (Whicher Range)	MBSP2-WA-078	6275	Western Australia	Complete
York Plains	MBSP-VIC-109	3381	Victoria	Complete
Yorklea	MBSPPL-NSW-28	2470	New South Wales	Not complete
Youngvale	MBSP-VIC-110	3401	Victoria	Complete