



**Central Darling Shire Council
Draft of Submission to the 2021 Regional
Telecommunications Review
September 2021**





Introduction

The current state of telecommunications is a key issue for all of us here in the Central Darling Shire.

Whether it is improved mobile coverage or better access to broadband internet, the Central Darling Shire Council has a firm priority of working to improve telecommunications connectivity within the Central Darling Shire.

As such Council has developed this draft submission to the 2021 Regional Telecommunications Review for consideration and input by residents, organisations, and residents of the Central Darling Shire.

While we continue to work on this current draft, Council is keen to get your views and input.

You can provide a written submission to us via email to:

council@centraldarling.nsw.gov.au

To allow us time to finalise the submission we are looking to receive your comments by Close of Business, Friday 24 September 2021.

Please take the time to contribute to this important submission.

Regards

Mr Greg Hill
General Manager
Central Darling Shire Council
8 September 2021



2021 Regional Telecommunications Review (RTR) - Overview

The RTR is an opportunity for people living and working in regional, rural and remote areas of Australia to share their views and experiences using telecommunications services in their area.

The Regional Telecommunications Independent Review Committee (RTIRC) has released an issues paper (attached) and is seeking submissions on the issues paper as well as views on and experiences with telecommunications in regional, rural and remote Australia.

As part of the Review, the Committee will consider:

- the impact of Government policies and programs to improve regional connectivity and digital inclusion;
- insights from COVID-19 on the changing digital needs of regional, rural and remote areas;
- service reliability issues which impact regional communities and options for mitigating them;
- the role of emerging technologies in delivering telecommunications services in regional Australia;
- ways of encouraging further investment in regional telecommunications;
- the role of telecommunications in supporting broader regional development goals;
- ways to improve co-ordination between government and industry in telecommunications investment; and
- consumer awareness and education regarding telecommunications options in regional areas.

The RTR is now open to submissions. The closing date for submission is 30th September 2021.

The RTIRC website can be found at: <https://www.rtirc.gov.au/>



Proposed Response

Brief background of the demographics and geography of the Shire region

Located in the far west of New South Wales (NSW) and covering 53,511 km² the Central Darling Shire is geographically the largest shire region in NSW.

According to the Australian Bureau of Statistics (ABS) the population of the estimated population of the Central Darling Shire in 2020 was 1,829 with approximately 50% of the population (900) identifying as Aboriginal and/or Torres Strait Islander¹. This makes the Shire one of the smallest in terms of population in NSW.

The small population of the Shire is geographically dispersed between the remote towns of Wilcannia, Menindee, Ivanhoe, and White Cliffs with the remainder of the population in the hamlets of Sunset Strip and Tilpa, as well as pastoral properties.

Unemployment and the median weekly income for the Central Darling Shire region is also a significant issue which impacts on the access of residents to suitable telecommunications. According to the 2016 census the unemployment rate in the region was 11.2% compared to 6.3% for NSW and the median weekly income for households was \$901 compared to \$1,486 for NSW².

The 2016 census identified that 37.9% of persons employed worked in Agriculture, forestry, and fishing with the next three biggest employing sectors Education and Training (13.5%), Public administration and Safety (12.1%) and Accommodation and Food Services (6.4%).

Current state of Telecommunications connectivity in the Shire region

The main towns of Wilcannia, Menindee, Ivanhoe and White Cliffs are heavily reliant on fixed voice (landline) service and the accompanying access to the internet via ADSL. Mobile coverage in the Central Darling Shire is still patchy. Currently the four main towns and the hamlets of the Sunset Strip and Tilpa are covered by the 3G and 4G networks. Outside of these areas, including on main roads connecting towns and hamlets in the Shire the mobile network has limited to no coverage³. This is of particular concern to people traversing the Shire, whether on main roads through the Shire such as the Barrier Highway or using key Shire roads such as the road from Menindee to Wilcannia.

Even within the key towns of the Shire, coverage is limited. For example the Telstra coverage map found at www.telstra.com.au/coverage-networks/our-coverage states that in Menindee indoor 4G coverage is limited and 'you may need an external antenna'.

According to the Telstra Payphone Register and Locator Tool⁴, there are seven public payphones in the Shire - two in Wilcannia, and a single payphone in each of Menindee, Ivanhoe, White Cliffs, Tilpa and the Emdale Roadhouse. There is no public payphone at the Sunset Strip. Therefore, residents of the Shire rely heavily on mobile coverage and/or fixed landlines.

¹ <https://dbr.abs.gov.au/region.html?lga&rgn=11700>

² https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/lga11700

³ <https://www.telstra.com.au/coverage-networks/our-coverage>

⁴ <https://ppol.pbspectrum.com.au/connect/analyst/mobile/#/main?>

As a result of the poor mobile reception in the broader Shire region, CDSC staff and other businesses (such as the pastoral industry) and individuals who operate extensively outside of mobile coverage rely heavily on UHF radio or satellite phones. This however presents difficulties as the CDSC is unable to provide UHF radio or satellite phones to the entirety of its staff due to the costs involved.

Telstra is the only mobile phone service provider operating in the Shire. The mobile access of other providers is restricted to emergency calls only. This often catches visitors to the region and tourists unaware, causing further frustration.

In the Shire region broadband internet services are provided through the nbn™ Sky Muster™ satellite service.

The 2016 Census revealed the following details regarding how residents accessed the internet⁵:

Access to internet at home - occupied private dwellings - Census

Description	2016
Internet accessed from dwelling (%)	54.4
Internet not accessed from dwelling (%)	38.8
Access to internet at home - inadequately described or not stated (%)	6.6

Only just over half of residents were accessing the internet from home.

Although not directly a focus of this review, the coverage of Free To Air (FTA) TV transmission is also worth noting as poor FTA TV reception coupled with poor mobile and internet connectivity exacerbates the communications issues for the Shire.

According to the Australian Government's mySwitch⁶ website the FTA digital TV coverage is rated as follows in key locations:

- Wilcannia - Good
- Menindee - Limited
- Ivanhoe - Limited
- White Cliffs - No transmitter
- Sunset Strip - Limited
- Tilpa - No transmitter

Outside of these areas, reception is patchy or non-existent. Access to the Viewer Access Satellite Television (VAST)⁷ system is free, however there is an initial set up cost that may be prohibitive to low-income earners.

Similarly, radio coverage is also limited. The ABC is the only AM coverage available in the Shire's four towns. The FM band is limited to local FM community radio and WEV Bourke FM (for Wilcannia and White Cliffs). ABC FM is available in Ivanhoe and Menindee, but comes from Dubbo, not Broken Hill, even though communities in the Central Darling Shire have a natural connection with the Broken Hill region.

⁵ <https://dbr.abs.gov.au/region.html?lyr=lga&rqn=11700>

⁶ <https://myswitch.digitalready.gov.au/>

⁷ <https://www.myvast.com.au/vast>

How does the current state of connectivity impact the Shire?

The CDSC is often the first point of contact for community members when there are issues around connectivity. Rightly or wrongly, many residents of the Shire see the CDSC as responsible for the delivery of telecommunication services. Council understands the frustration many residents and businesses feel in regard to the current situation but is not in a position to directly resolve these concerns.

CDSC has carried out community consultations with residents of Wilcannia, Menindee, Ivanhoe and White Cliffs. All consultations have connectivity as a key concern of residents including the need for better mobile coverage, provider choice, better access to broadband internet and better radio and television coverage. Council has included improved telecommunications connectivity as part of its advocacy plan.

A good example of some of the frustrations with the current coverage and its reliability is captured in this ABC News Article published on 24 March 2021:

www.abc.net.au/news/2021-03-24/far-west-nsw-graziers-offline-due-to-phone-tower-connectivity/100026166

While the lack of reliable coverage in many parts of the Shire makes life difficult for business owners, particularly those in the pastoral industry, the greater concern is the capacity of the network to be relied upon in the case of medical emergencies such as road or workplace accidents.

Case Study - Central Darling Shire Road Sign Network

CDSC is in the process of completing an update to key remote road signs throughout the Shire which will have the ability to have road statuses updated remotely (through the use of the 4G network).

This provides CDSC the ability to quickly provide notices to community members regarding whether a road is closed or if there is an issue that drivers need to be aware of.

At the moment these signs can only be installed where there is coverage by the 4G network.

In the instance where the 4G network fails, the functionality of these signs fails, which could then cause delayed notice to the community on road hazards.

Additionally CDSC would like to expand the functionality of these signs through the installation of security camera hardware to provide the ability to remotely check on signs for both confirmation of status update and road status.

However this is unfeasible at this time due to the limited coverage of the 4G network and speeds required to create a consistent stream of video data from the CCTV infrastructure.

As Telstra is the only mobile service provider in the region, residents and businesses are faced with a lack of choice and competition when choosing a carrier - there is only one choice available to them.

The nbn™ Sky Muster™ satellite service provides coverage across the Shire. While this provides a basic level of broadband internet coverage and access across the region, the key issues facing users of this service are speed of service and cost. The maximum possible speed for this service is a download speed of 25Mbps and a maximum upload speed of 5Mbps⁸. Bad or extreme weather conditions can also interfere with coverage.

In addition, depending on the provider, the service is generally more expensive than standard nbn™ services accessed by the majority of the Australian population through fibre to the node.

Cost is another significant impediment to access the internet through mobile networks and the nbn™ Sky Muster™ satellite service. While basic access is comparable in cost with standard mobile and broadband services, there is often a cap on data transfer which can either result in increased expenditures for higher data usage or slower speeds once the cap is exceeded. Affordability is particularly relevant to this discussion given the high levels of unemployment and low levels of household income in the Central Darling region.

This means that many residents simply cannot afford to access broadband services that many take for granted.

The impact on people's lives of a lack of access to affordable and reliable telecommunications is significant when you consider how much of the average Australian family's life is conducted online these days. For example:

- Educational options for many are limited if there is no internet access. It also means that students have difficulty with homework and assignments. Keeping up with education and the technology itself is difficult for those who do not have access. As a result, schools in the region are required to provide 'paper-based' educational materials rather than online based education.
- With limited access to health professionals in remote Australia, the opportunities for telehealth are enormous when it comes to improving the health of residents of the Shire. Opportunities for better health care continue to be missed where people cannot access telehealth as an option.
- Social interaction, especially during lockdowns due to COVID-19 and other emergency situations is limited if there is no ability to communicate through email, social media or video conferencing. Many people are still reliant on public payphones in some areas of the Shire to keep in touch with family and friends.
- In remote areas, shopping online is often the only way of accessing goods and services that are not available locally.
- Businesses in the Shire, including Council, are hampered by the access to reliable telecommunications. Video conferencing is a good example, with constraints on the current capacity resulting in poor quality online meetings through lag causing frozen screens and other connection issues.
- Banking and bill paying is also not a possibility if you have limited or no access to mobile or internet services. Often the only other option is to use the one location in town (usually the local Post Office) to access these services.

⁸ <https://www.finder.com.au/broadband-plans/satellite-broadband>

- In emergency situations, emergency service providers are heavily reliant on telecommunications systems. Power outages, combined with a lack of generator or battery backup, means the telecommunications towers and the exchange fails. Significant outages occur in the Shire every three months on average and have significant impacts on business, schools, residents and emergency services.
- Entertainment options are also limited. With the demise of DVDs the vast majority of entertainment for so many people is now exclusively online. In places like the Central Darling Shire, many people simply do not have the option either through connectivity or affordability to access entertainment platforms like Netflix, Stan, Youtube or even the plethora of free to air television streamed online.

Case Study - Youth Access to Data in Wilcannia

As a result of affordability issues and a lack of access to mobile or internet data at home, Wilcannia has seen many young people being forced to locations where they can access free data through WiFi.

This includes congregating outside government agencies that have free public WiFi to download movies, music videos and other forms of entertainment and to access social media.

This is a way in which many young people in the town can feel socially included, like so many of their peers across the country. However, the Council is concerned these activities are not just limited to daytime, but that many young people are congregating at free data 'hotspots' at times, especially at night, that are unsafe and which exposes them to anti-social behaviour.

More needs to be done to allow young people in the Shire to access data that is affordable, reliable and in ways which keeps them safe.

While these impacts are continuing to be felt in the Central Darling Shire, there is a strong feeling that the community is being left behind when compared to the vast majority of the rest of Australia.

The opportunity to grow businesses and arrest the declining population numbers in the Shire is being inhibited by the overall paucity of the telecommunications situation in the Shire.

Impact of COVID on telecommunication usage in the region

With the increase in COVID cases in regional NSW, particularly the impact being felt at Wilcannia, many CDSC staff have needed to work from home or self-isolate waiting for test results, meaning sufficient remote access is required for these staff to complete their roles.

While CDSC has a robust wide area network configured currently, the effectiveness of their network is being reduced due to the lack of internet connectivity and infrastructure in place within the key townships of the shire. This created issues with the delivery of important tasks being hampered or delayed, which then had a flow on effect to the various other sections of the council (including finance, works and community services).

More broadly all residents are being impacted by the restrictions resulting from the current COVID-19 lockdown emergency.



Schooling for example in lockdown is limited to paper-based material given many students do not have access to online options. The result is that students in the Shire, who are already facing significant difficulties, are placed at a greater disadvantage due to the impact of COVID-19 restrictions on education delivery.

The CDSC can specifically point to the coverage and connection issues that are being experienced by CDSC staff and community members at testing and vaccination sites which causes a break in critical communication. Communication from medical staff being brought in from outside the shire is also affected meaning updates being provided to relevant third parties is being impeded.

The case study below demonstrates the issues facing the Shire in emergency situations.

Case Study - Wilcannia Emergency Accommodation

In September 2021 emergency accommodation was set up in Wilcannia at three separate locations to accommodate those who had to quarantine as a result of becoming infected with COVID-19.

Wilcannia's poor connectivity has seen service providers scrambling to boost telecommunications capacity to ensure that the emergency accommodation established at the town's two caravan parks and oval had adequate coverage.

In addition, Telstra had to boost the telecommunications infrastructure at the Wilcannia Hospital to provide Health services with the capacity they need to cope.

Put simply, the town's existing telecommunications infrastructure was not sufficient to manage the increased levels of demand.

Sadly, it has taken the full brunt of the COVID-19 pandemic to highlight in real terms the issues facing residents of the Shire that have been raised continually by the CDSC.

What does 'good' or 'normal' look like for the Shire region?

In terms of mobile coverage, the CDSC strongly believes that all mobile blackspots should be eliminated, especially along major roads across the Shire region. Increased reliability and capacity of the mobile service is also needed. Ideally, residents and businesses should also be provided with a choice of mobile providers to encourage competition and options for cost reduction.

Access to broadband internet also needs to improve. At a minimum CDSC, local businesses and residents should have the ability to connect to at least two basic types of internet connection with acceptable speeds and bandwidth.

In this instance that would be a combination of 4G and NBN (Fixed Wireless or FTTx in townships).

This provides a level of redundancy for all community members which has become standard for better connected townships and shires (where NBN is the primary connection and 4G is



used for redundancy at the premise or remote access while outside of the business or home).

Currently the NBN services that can be accessed by CDSC (Satellite) cannot provide a speed which is fit for either personal or business use and the 4G coverage is poor meaning that there is currently no service that can be deemed "suitable".

Affordability for mobile and broadband access is also an issue that needs to be addressed in the region.

Increased free to air television and radio coverage would also greatly benefit the region. However, the more residents that can access reliable, affordable, high speed broadband and mobile services the more this will compensate for a lack of access to free to air television and radio as these services can then be accessed through streaming services provided by broadband and the 3G and 4G mobile networks.

What is the CDSC doing in response to improve the situation?

CDSC continues to advocate for better telecommunications connectivity and is working with providers and other stakeholders to improve the current telecommunications shortfall in the Shire region. Having increased Mobile and NBN infrastructure creates a base for which CDSC can provide a secure and easily accessible network that can be managed by both CDSC and external IT service providers.

Increased investment in communications infrastructure will also provide greater benefits to all who live in, visit and travel through the Shire region.

Further support to the Shire and providers should include:

Increase the numbers of repeater towers (UHF, television, radio and mobile):

Financial support for increasing repeater towers in the Shire would greatly improve connectivity in the region as follows:

- Increasing the UHF coverage and reliability in the region would be a sound solution to support those in the region relying on UHF radio to compensate for the lack of mobile coverage.
- Provide additional free to air television and radio coverage and options for residents.
- Increase mobile coverage, reliability, capacity and eliminate blackspots and provide businesses (especially pastoral businesses) outside the main towns in the Shire with access to better technology options.

Support for social housing to connect: The well documented difficulties with social housing options for people in the Shire is also proving a barrier to large numbers of residents gaining access to better telecommunications services. In conjunction with the CDSC's push for better social housing solutions for the region, particularly the town of Wilcannia, consideration for targeted support to low income earners and their families in remote locations that provides better opportunities to access broadband services is needed.

As noted above, while access to nbn™ Sky Muster™ satellite service is available, the cost of installation and ongoing access is prohibitive to many families.



Improved Mobile Coverage through the elimination of Blackspots: Using existing mobile Blackspot programs, prioritise the elimination of mobile blackspots on key roads connecting communities such as the Barrier Highway and roads connecting the townships of Wilcannia, Menindee, Ivanhoe and White Cliffs by investing in appropriate telecommunications infrastructure that provides broad and reliable coverage.

Program to support improved Public access to the broadband network: Due to the low levels of internet connectivity and the additional cost involved, including purchasing of computers, which may be considered prohibitive for many low income earners in the Shire region, a program supporting better access to both computer hardware and internet connectivity would be welcome for regions such as the Central Darling.

Government funding for internet cafes run for example from schools, Indigenous community organisations or Shire premises would help boost accessibility and connectivity. Government funding would be needed for the set up and running of such a program with contributions from other organisations through the provision of space in existing premises.

The CDSC would be happy to work with Federal or NSW state agencies to develop a trial program aimed at improving connectivity for the region.

Public Access WiFi: Increased internet connectivity would provide the ability for CDSC to scope the benefits of providing public access wireless to community members at key sites within the townships.

Following the Regional Telecommunications Review - Far West NSW Public consultation session on 30 August 2021, the CDSC reached out to Pivotel to take part in the Federal Government's Alternative Voice Services Trials Program. This has the potential to benefit some CDSC staff over the 12 month period of the trial and provide a test case for its benefits in a remote region.

The CDSC has also commenced discussions with NBN Co to explore possibilities under the \$300 million Regional Co-investment Fund. While this program may prove to be useful in helping improve the Shire regions connectivity to the NBN, the requirement for a co-contribution to any approved projects will require the CDSC to find additional partners to provide the funding, given the paucity of available funds to the CDSC.

The CDSC is willing to explore all avenues available to it to help support and deliver improvements to the telecommunications networks across the Shire region and would welcome further engagement with the 2021 Regional Telecommunications Review.
