

# Mobile Coverage Programme Discussion Paper

## Submission Cover Sheet

### Submission Information

This cover sheet should be attached to submissions made to the Department of Communications in relation to the Mobile Coverage Programme Discussion Paper.

#### Contact Details

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Date:	28/2/2014

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Do you want all or parts of the submission to be treated as confidential? Yes ☐ No ☒

*If yes, identify below which parts of the submission are to be treated as confidential (and provide a reason):*

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#### Submission Instructions

Submissions are to be made by **5:00pm (AEST) Friday 28 February 2014**.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text-based formats via the email address [mobilecoverage@communications.gov.au](mailto:mobilecoverage@communications.gov.au)

Alternatively, submissions can be sent to the postal address below (to arrive by the due date):

The Manager  
Mobile Coverage Programme  
Department of Communications  
GPO Box 2154  
CANBERRA ACT 2615

All submissions lodged will be acknowledged by the Department of Communications by email (or by letter if no email is provided). Respondents lodging a submission who do not receive acknowledgement of their submission should contact the Department. Submissions which are not acknowledged by the Department as being received may not be considered. Respondents should be aware that emails greater than 10Mb may not be successfully delivered.



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On the eve of this submission new information came to light which indicates there are a number of low cost solutions to alleviate mobile reception in regional black spots which are either being caused by legislation prohibitions based on incorrect information along with telco providers running agendas to suit themselves rather than their customers.

One expert I talked to who told me he was trying to get a device legalized which would vastly improve mobile reception in many problematic areas claims a senior telco manager said to him 'We will not be dictated to by our customers' needs'.

Here's an outline of some individual and collective problems in NSW's lower Macquarie Valley, a sub-region encompassing the towns of Narromine, Trangie and Warren and the RAMSAR listed Macquarie Marshes.

The area is comprised of rich irrigation country and includes some of the nation's best known merino studs, there's also a large number of beef producers and mixed farmers.

It is relatively well populated for a regional area and hugely important in terms of productivity to the broader economy yet many major primary production enterprises have zero mobile coverage.

Towards the end of the M2100 submission I have listed some potential solutions for problem areas which may turn out to be relatively inexpensive.

Imagine your frustration if during the running of this submission process all the staff tasked to receive and collate the emails were unable to do so.

Welcome to the daily world of Collie's [REDACTED].

Looking to expand her goat and beef business, after being told of boundless opportunities in the virtual world she employed a part time worker to drive out to the family farm a few mornings each week to handle the online component of the enterprise.

'There have been several days she has come for work and we have had no internet connection, drop outs, pages won't load, being unable to respond to emails, unable to access our business page on face book,' [REDACTED] told our submission.

'We are trying to conduct a business here!'



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'Internet banking is a worry, as when you log in, it often logs out, during a transaction.'

This isn't the sort of repetitive problem which comes to light during mobile and internet surveys across outer metropolitan Australia where the debate centres around who can download movies at the fastest rate.

The basic premise of mobile coverage and internet accessibility is distorted by the major carriers' claims that 99 percent of the nation receives coverage when they base their percentages on population rather than landmass, in the lower Macquarie it's all about who can get enough reception or bandwidth just to carry on.

High on the list of annoying items for [REDACTED] is the dismal performance after the glib sales talk has died down, but unlike metro users there's nowhere else to turn as competitive providers of decent services don't cover this area, making a mockery of claims the market-based economy does it best.

'I was contacted by a Telstra salesman recently, he told me that we could get this fantastic deal for our phone and internet, after approx 6 conversations of him assuring that this service was available at Collie, we said yes we would proceed! Surprise, Surprise, our exchange is unable to provide the correct speed', she said.

'The cost of our plan is very high, compared to ADSL, and we are also limited in MB offered. We currently disconnect the internet when not at the computer.

'Our daughter is going into year 9 this year, and I am sure she will have assignments, that she will need the computer for. You may ask why don't we use Optus here for the internet? Well, we have tried, but it appears to work on the phones, but not on the office computer.'

Just another drama to add to the list of rural disadvantage when it comes to telecommunication inadequacies.

Much of the state has been in and out of drought for the past decade or more meaning many farming families who traditionally sent their kids to boarding school haven't been able to afford that cost.

This has created immense disadvantage for people already living with a range of acute disadvantages, if students can't utilise the internet at home when the vast majority of their peers across the state can, there's a gulf of inequity caused purely by poor telco services.



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The [REDACTED] are 5 kilometres from the Collie exchange and claim that if it was upgraded they would be eligible for ADSL service.

This would reduce the cost to them along with improving their equity of access and without the need to build expensive new towers.

And their Year 9 daughter may just get a better crack at good grades.

Could this be examined across the valley and some of the money spent upgrading local exchanges to examine the cost-benefit ratio?

The [REDACTED] aren't alone.

Just 26 kilometres from Narromine [REDACTED] complains she's forced to hold her phone in the air until the signal appears strong enough for her to send a text.

'It's like we are living in a huge black telecommunications hole,' [REDACTED] said.

Because of this unreliable service there are additional on-costs'

'We are unable to have our landline disconnected to save money like residential dwellers as we need to have a phone service.

And there's a massive additional cost penalty as well.

'The internet with Bigpond is very expensive. \$100 for 15 gbytes. My son lives in Dubbo and pays \$93.00 for 200 gigabytes. Big difference,' she said.

That's about 14 times the cost, it's virtual internet highway robbery, only the bushrangers these days aren't breaking any laws.

Imagine if farmers started charging city dwellers beef at 14 times the price, imagine if loaves of bread were suddenly cashed out at \$60 at the local suburban supermarket.

How about your local servo selling unleaded at \$21 per litre? Yet because this is the bush, and the debate has revolved the appalling lack of mobile coverage, the cost roting has been largely ignored by media and decision makers.



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It's a below the radar problem.

'We should not be disadvantaged just because we live in a rural area,' [REDACTED] believes.

[REDACTED] also see the problems very first hand and constantly, here's part of their daily pain as emailed to the M2100 submission.

[REDACTED] uses internet for:

- auction plus - putting in live bids for stock
- NVD decs & updating databases for buying / selling stock
- looking for / buying fodder
- keeping an eye on the weather and sometimes making weather related decisions
- looking for / buying equipment or looking for places to maintain current equipment
- looking for information on all sorts of things

I use it for:

- banking - paying bills and making transfers
- directions to places, maps

Because of where we live our internet access is slow at best and sometimes non existent.

There are times when things have to be done right now and it is frustrating when you want to do it and are unable to.

eg sometimes you might need to make a payment for something, or else miss out.

Maybe you are about to go somewhere and want directions before you leave.

We are also limited in our choice of internet providers eg Southern Phones cannot provide us with internet, so limited leverage when negotiating new plans.

(A very common theme, where there is no competition there's no onus on the provider to be remotely competitive and the evidence backs this up very strongly [REDACTED]).

We are very limited in our choice of telco. Basically if we want the best coverage we can get (which is poor) we have a choice of Telstra or Telstra.



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I think it is very unfair that people who rely most on the internet, ie have less alternatives, get the worst deal.

Over the last few weeks internet has become extremely unreliable, much worse than usual,' [REDACTED]

This has paid off in reduced profits and loss of opportunities.

'If [REDACTED] is waiting on someone to call him back, he has to wait by the landline and that is a huge waste of time. This happens a lot, [REDACTED] says.

'There are times when our agent has had a chance to get hold of stock at a good price, but has been unable to contact [REDACTED] and so missed the opportunity.

'So poor service impacts on our business.'

The complaint that current snail paced internet speeds and spectacular unreliability are worsening has been a common theme during this regional submission process, so it's interesting to note that from an anecdotal point of view, the consensus as told to me has been overwhelming.

Even people who've signed up for the NBN Co wireless towers around Dubbo tell me they've seen a remarkable slowdown in download speeds as increasing numbers of subscribers jump onto the service.

[REDACTED] lives in a veritable Bermuda Triangle of poor reception, 16 kilometres from Trangie, 36 k's from Warren and 44 from Narromine.

'Our mobile reception in the house is limited to putting the phones on a window sill to receive messages, and sometimes phonecalls, which we can't answer with any great reliability,' she says.

'Reception around the house outside is poor, with a couple of 'hot' spots that can nearly be relied upon to make a call from.

'My husband is running an irrigation surveying and design business and more and more his clients rely on mobile contact. Often when he is on isolated properties on his own he has little or no mobile coverage, which is a safety issue.'

Back to [REDACTED].



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‘At times ... having coverage or not having coverage could be life or death.’

Inconvenience, loss of productivity and endless frustration are a sad indictment on regional Australia being left behind but when you consider the unacceptable risks run by those living and working in many parts of the hugely productive and populous lower Macquarie Valley it ups the ante.

As a journalist with 20 years in the region I’m sick of how many times a call like this came over the police scanner.

‘Motor vehicle accident on the Old Warren Road. Motorist who came across the scene reports she had to leave a person trapped and bleeding in the mangled wreckage while she drove 10 kilometres to get mobile service so she could alert paramedics.’

That creates an enormous deal of trauma for the witnesses who stumble upon the scene and then have to make the agonising choice of ‘Do I go or do I stay?’, can I live with myself if the paramedics arrive a minute after the victim bleeds to death because I didn’t stay to help prevent the blood loss?

Not to mention the victims themselves along with their families and friends.

Poor coverage which may have made the difference always leaves the open question of What If? in the minds of those personally affected.

Poor communications in the region see many emergency responses turn into a comedy of errors after initial reports by mobile phone are found to have given an incorrect location and the caller can’t be reached for verification because they’re out of mobile range.

NSW emergency services minister [REDACTED], himself a former police officer, told me just last month that he’s extremely concerned about the level of risk his personnel are exposed to thanks to unreliable mobile coverage, from town and bush firefighters, State Emergency Service and Volunteer Rescue Association members as well as police.

With agriculture one of the nation’s highest risk industries this level of coverage makes for a poor report card despite the technology having been around for more than two decades.

The reduction in farm labourers has led to an increase in farmers and agricultural workers performing tasks by themselves in isolated areas, when that factor’s added in to the poor mobile service equation it brews into the perfect storm.



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We also have a huge number of state government employees working across the lower valley from national Parks staff in the RAMSAR listed world heritage Macquarie Marshes through to outreach health workers.

Not only does State Water have employees constantly criss-crossing some of the valleys worst reception areas along substandard roads, the organisation also relies increasingly on mobile coverage to remotely activate and adjust equipment such as sluice gates in the most isolated areas to save hours' long trips to flick a switch.

So many of these issues are intertwined in the weekly trials and tribulations of living and working in this part of the world.

After the horror news stories in the past twelve months on petrol being transported by road tankers here's the perspective from a local fuel company.

'We are a large Fuel Distribution company located in Albert in central New South Wales. We operate 15 trucks within a 500 km radius.

All our trucks are equipped with mobile phones, however within a 20 – 30 km radius of our depot we have a mobile blackspot and are unable to receive mobile coverage.

Because of the nature of our business, it is imperative that mobile coverage is required not only for business but also for safety and communication.

██████ is also a tourist location with many people passing through on a regular basis, and tourists often complain about the lack of mobile coverage.

It would be greatly appreciated if you could bring this to your attention so as our community could benefit and function more efficiently.

Yours truly,

██████████  
██████  
██████████

Here's a very personal plea from the ████████ family who have to exercise a high level of planning in their daily and often relatively isolated lives.





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Picture it against the backdrop of metro areas where mobile coverage is most often not an issue and hospitals are generally close by.

'We are located near Dandaloo which is 60km from Trangie, 25km from Albert, 45km from Tottenham, 75 Km from Narromine and 115km from Dubbo in NSW.

Our farm has very limited coverage for our mobile phones since the analogue service was turned off.

Current mobile devices seem to be prioritising the extra functions like cameras, music and apps rather than strong mobile phone reception which is extremely frustrating when we cannot make a call or even txt the majority of the time.

Although we are opting for the "farmer phones" we are still not able to get coverage.

We have tried car kits but have found it does not improve the signal enough to make a call.

Our farm is currently in the process of installing, at our own cost, external booster aerials to improve the mobile coverage around our houses.

Neighbours have also done similar installations but the problem is that it does not cover you once you are a couple of hundred meters away from the house.

So our working environment has no mobile phone coverage.

It is very difficult to run a business when you can't contact other people on the farm or businesses off the farm. It results in loss of productivity and a lot of frustration.

We currently have satellite internet at the house and have been told we are not getting the NBN fixed wireless broadband so having mobile coverage, so we can get mobile wifi, would be very beneficial to ourselves and the two other families living on the farm.

It is also a big issue for us in managing the safety of those living and working on the farm. We have one person who is asthmatic and has been hospitalised with asthma attacks and another who has an



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anaphylactic reaction to bee stings, our dog was bitten by a snake in the back yard last summer and died before we could get her to town.

We live in an isolated area which has gravel roads that are impassable in wet weather and has had 8 accidents in the past few years.

Those vehicles have no way of contacting for assistance as it is 'no service' on the road.

This is the road we have to travel 100km each day to get our kids to school, there are 7 children who travel each day on this road.

So as you can imagine we are wanting to get our mobile coverage prioritised and improved.

Thank you for your time in reading this and the other letters in our submission.

Regards

[REDACTED]

The [REDACTED] daily run risks which many people in Australian cities, including WorkCover employees and management, would find unacceptable.

On a broader scale local business organisations see the poor reception as a major threat to productivity and services in the valley.

[REDACTED] president of the Warren Chamber of Commerce and sees and hears about the problems daily as he travels to look after his clients.

'In today's technological world it is important that businesses and rural enterprises have reliable and high speed telecommunications to remain efficient and keep abreast of improving technology,' [REDACTED]

'All major transport routes in rural areas should expect continuous mobile coverage. Emergency services and those requiring their services should also expect to have reliable and continuous mobile phone coverage.'



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'It would seem only fair that rural areas receive the same level of reliable and high speed telecommunication services as our metropolitan counterparts do.'

That's a first hand look at the daily dramas which are replicated across the region. Residents are cynical about the overall situation despite all the promises over the past two decades about the next big thing, the latest and greatest, they've seen things get worse in many instances.

In the late 1990s I travelled across the region on a daily basis and knew every 'hot spot' where I could pull over to make a call on the CDMA phone.

These days there are less places to do that and many people have had the same experiences after analogue was switched off.

Warren Shire Council firmly believes that the equipment put in the towers in its Local Government Area was of a poor quality and transmitter strength in a bid to save money, if that's the case a review by an independent expert may be able to uncover relatively inexpensive ways of vastly improving many local services.

I've been making my own inquiries during the course of this submission and have heard claims from tech support people that providers have often installed substandard and obsolete equipment in this area to save on costs, much of the equipment I've been told has been sourced from Sydney after it was upgraded for the metro market.

I believe the commonwealth should hold an inquiry to establish if in fact this is the case because rural and regional residents should have at least the transparency to know how they're being treated by telecommunications providers.

With claims of price gouging it would be interesting to see if those inflated prices are being garnered off the back of obsolete and sub standard infrastructure.

While the \$100 million total is a significant sum it's barely going to scratch the surface across the continent especially if fringe metro areas are vying for funds from the same bucket of money, that's obviously where the votes are.

In 2007 there was a 'Regional Powered Tower program designed by a longtime former Telstra executive with the idea being for the commonwealth to fund towers in strategic locations of poor coverage and connect the power infrastructure, enabling telco providers to hang their equipment on them.



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This would make it feasible for companies to cover areas which would otherwise be seen as commercially unviable.

Western Australia apparently utilised Royalties to the Regions funding from the mining boom to place towers along highways which was a costly exercise but didn't benefit the majority of the people, however it looked impressive from a shallow media perspective with photo opportunities of new construction.

I note this program is considered a 'success' on page 5 of 'The Coalition's Mobile Black Spot Programme, August 2013' but that opinion doesn't appear to be universally accepted.

We believe there's a strong case to utilise the NBN fibre rollout to aid mobile reception and help break the Telstra monopoly, both to drive prices down and also convince Telstra it has to offer country consumers a better deal when faced with any decent competition.

Towers placed over the fibre optic cable can then serve as a master tower for a cluster of other towers, beaming that strong signal sourced through the fibre optic and pushing it across a much broader area.

This is also something which needs to be investigated by a common sense nuts and bolts expert with no industry agenda.

The \$100 million should also be used as much as possible as leverage to get industry to contribute as well, they're the ones who have the licences to make money from any improvements paid for by taxpayers, it's only right and fair that the taxpayers see a co-contribution.

A lot of people along the beaches would like better coverage as a convenience, in the lower valley it's a far more urgent matter than being able to call your partner to pick up a loaf of bread while they're at the shops.

The Orana Regional Organisation of Councils which covers the broader region encompassing the lower Macquarie says all its member mayors are being continually approached by ratepayers complaining about poor mobile and internet services.

The lower Macquarie Valley provides an enormous revenue stream to the nation and punches far above its weight on a prorata basis per head of population, yet areas which contribute much less to Australia's tax base have far better services at far cheaper prices and have an enormous diversity of provider options ensuring at least a measure of competition.



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Some areas are so sparsely populated it's not viable to invest in expensive infrastructure to provide the mobile coverage and internet speeds and reliability city residents enjoy.

The lower Macquarie isn't such a case, here a relatively small investment could help encourage tremendous economic and social gains.

This submission isn't about ticking boxes but rather providing a snapshot of the daily challenges caused by inequities in the provision of mobile and internet services.

The sad part is that while there are huge numbers of people out there hoping for better they're so cynical and disillusioned with government that they couldn't be bothered sending me information on their circumstances, believing that the government will either do nothing or if it does, then the funds allocated will make certain entities wealthier while leaving the lower Macquarie Valley no better off.

Some people however are so desperate they've sent me information despite living nowhere near the area serviced by M2100.

██████ lives in the small town of Mendooran which is north of Dubbo. Here's what he wrote to me.

Dear John Ryan,

My name is ██████ and I live in Mendooran, New South Wales and would like to express my dissatisfaction at the level of communication facilities in Mendooran.

According to the Australian Bureau of Statistics, Mendooran has doubled its population since last census. This is due mainly to retired people seeking a change of pace and lifestyle and they move to mendooran from other parts of Australia. Mendooran also boasts a Free Camping site that is rated by travellers who use this facility as one of the best in the state. There is an enormous amount of turn over of visitors to this site and the township.

Unfortunately Telstra does not support the provision of adequate communications either by phone or internet services. As you could imagine with such an ageing population and with the grey nomads visiting this area, communications is vital in providing emergency services (not if) when they are needed as well as keeping in touch with family and friends.

Financial cutbacks imposed by sitting governments have resulted in the community nurse no longer servicing the town and many elderly people are left very vulnerable by the lack of proper and



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deserved communication systems. These elderly feel as if they have been deserted by governments because they are not living in a city or major regional areas.

Mendooran is a historic town as it was the first settled town on the Castlereagh River. It also used to be on the Cobb and Co stage route. Mendooran hosts a rodeo which is rated as one of the best in New South Wales. Pony club events and a horse racing event on the local round are also very much supported and attended by locals and visitors.

The same familiar feed back is given to organisers of these events; terrific event, shame about the phone and internet coverage.

It is with a passionate plea that I submit this message with the hope of receiving a listening ear that will support our town's goal to get an updated communications system that will provide services that allow us to maintain a link with the rest of Australia.

Regards and best wishes



I find it enormously troubling that this bloke feels he has nowhere else to turn.

Nevertheless, [REDACTED] not in the huge and silent majority who feel this process, like the others before it, is a complete waste of time.

As one wag said to me, 'Even if I could get reliable internet service to send you an email, the level of expectation is too low for any expenditure of effort.'

Prove him wrong.

Now a potential solution. In the days before analogue was switched off many people across the lower valley, myself included, used a Motorola 'bag phone' and achieved amazing coverage with those units.

Despite that success Australians have been forbidden to use these type of phones thanks to pressure on the regulators from the telcos.

This is a complex area but distilled into easy to understand language here's what happened.



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The older analogue phones were so powerful (3 watt as opposed to 0.5 watt of handsets) that they often locked on to the signal from a mobile tower and stayed on it, causing blockages to the network.

Thus the telcos lobbied to have them outlawed and succeeded.

This from one Q and A website.

'Those operating [REDACTED] are breaking several Australian consumer laws, by intentionally misleading purchasers into breaching the Radiocommunications Act 1992 (which potentially carries a two year jail term) - criminal law'.

The new digital units are improved and no longer lock on to individual towers but change seamlessly from one to the other.

If the phone only needs 0.7 watts to link to a tower, that's all the power it utilises, only cutting into the reserves when necessary.

It appears on the surface that the telcos and regulators banned the 3 watt phones as a knee-jerk reaction and the issue has never been revisited.

Other phones have been available such as the Motorola M8989 which boasted an amazing 8 watts of power.

Overseas websites abound with comments promoting these higher powered phones as the only answer to isolated areas where no telco is ever going to build infrastructure.

Researching with practical on ground trials could achieve valuable data on a potential low cost alleviation for many people.

While high powered mobiles won't necessarily enable those in blackspot areas to download movies at the fastest rates, it may help students trying to keep up with their classmates: it may enable farmers to get some work done while sitting for hours on their satellite regulated auto steer tractors and it just may save some lives when communication drop outs can mean the difference between survival and death.

Other technologies have also been explained to me on the eve of the closing date for this submission warranting further investigation which may enable residents in the lower Macquarie, along with many rural dwellers throughout the nation, more equitable access to a service most Australians take for granted.



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Limited time and resources have prevented me from being able to document further details at this time, but I've been informed by people who work in the industry that microwave links can be set up to bounce signals from property to property but in Australia this is illegal as such 'bouncing' over property boundaries would classify the property owner as an illegal service provider.

This restrictive legislation for seemingly no good reason has been a common theme through my recent discussions with technicians but because they have to work with the few powerful telco companies they were reluctant to go on the record for fear of payback.

Attached is one submission from a local technical expert who wasn't afraid to put his name out there., he's spent 35 years operating in the central west of NSW including the lower Macquarie Valley.

The fact he's had such long and continuous experience should be given great weight compared to company experts who are paid to push a line which advantages their employer, and who in many instances are transient either to the area or the industry.

Such issues should be thoroughly investigated and where ridiculous red tape is blocking potential solutions those regulations should be changed.

M2100 is requesting seed funding to conduct trials of different technology in the lower valley to see if more equitable coverage could be produced by utilising technology that's currently banned in Australia.

Otherwise we would like to see independent consultants funded to run practical trials amongst our wide spread of members, many of whom are situated in challenging geographical locations.

We believe this would be an effective way to distribute scarce dollars and it just may bring to light solutions for many people who have almost given up on ever getting any coverage, much less of a decent nature and at fair rates.

M2100 is in the early stages of planning to set up a major new agricultural industry across the valley which has the potential to create hundreds if not thousands of jobs which could replace many currently being lost in the manufacturing industry.

Without decent and reliable telecommunications services the job of attracting investment becomes much more difficult.





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I will be sending this submission to all federal MPs and senators so they can generate their own inquiries off the back of the information contained.

This issue is too important to just keep doing business as usual and solutions have to be looked at which may be outside the square of current thinking.

The fact many residents in the lower Macquarie Valley had far better mobile service in the early 1990s is practical proof that the current way of doing things, despite all the millions spent, isn't working.

Regards,

John Ryan  
Executive Officer  
**Macquarie 2100**

[REDACTED]

[REDACTED]