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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All submissions and comments, or parts thereof, will be treated as non-confidential information unless specifically requested, and acceptable reasons should accompany each request. Email disclaimers will not be considered sufficient confidentiality requests.

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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):

If the submission contains personal information of any third party individual, indicate on this Submission Cover Sheet if that third party individual has not consented to the publication of his or her personal information:

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

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.

28 February 2014

The Manager
Mobile Coverage Programme
Department of Communications
mobilecoverage@communications.gov.au

Dear Sir/Madam,

Thank you for the opportunity for the Blue Mountains City Council (BMCC) to comment on the *Mobile Coverage Programme – Discussion Paper - 16 December 2013*. BMCC strongly supports the need for greater investment in telecommunications network infrastructure to improve both coverage of high quality terrestrial mobile voice and wireless broadband services in regional Australia and completion in the provisions of these services.

Whilst BMCC provides comments on the options presented for delivery of the two programs, the primary focus of our submission is to clearly illustrate the high need for improved mobile coverage in the Blue Mountains Local Government Area and to explain some of the difficulties we face and suggest opportunities we see for BMCC to assist with delivery of the program.

It should be acknowledged that BMCC has unique challenges arising from the World Heritage Area status of the Blue Mountains Local Government Area (BMLGA) and in balancing sustainable development with conservation and appropriate community development and access. The particular terrain of the Blue Mountains provides major challenges to provision of mobile coverage but also presents many reasons why this coverage is essential for community safety and for economic sustainability of the region. The experience and issues around these challenges inform the comments provided below, which are presented against the major programme funding components.

Part A: City Context
In November 2000, the Greater Blue Mountains World Heritage Area (GBMWHA) was incorporated on the World Heritage List. The Greater Blue Mountains Area covers a total area of about one million hectares of mostly forested landscape on a sandstone plateau, 60 to 180 kilometres inland from central Sydney (inland from Wollongong to Newcastle). The City of Blue Mountains has a population of approximately 78,000 and is one of only two cities in the world that is wholly contained within a designated World Heritage Area. The City's location within a World Heritage Area, places responsibilities on the community, BMCC and other agencies to ensure that impacts of urban development are carefully managed and that the internationally recognised values of this natural environment are protected. The Blue Mountains attracts millions of visitors from throughout the world to its magnificent environment, making it one of the top five tourist destinations in Australia.

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the city within
a world heritage
national park

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It is the only World Heritage Area in Australia readily accessible by public transport from a major capital including Sydney airport, the main point of entry for most international visitors to Australia.

Current Level of Coverage
Reference to the Telstra Next G coverage map clearly demonstrates the poor mobile coverage across the BMLGA. This coverage is well below standard of the Sydney metropolitan area and most coastal and western NSW towns. The terrain of the Blue Mountains makes coverage difficult and with only a few sites providing good coverage, improved services via the proposed program is essential. Electrical storms and wet weather, which are common in the Upper Blue Mountains, also appear to interfere with mobile coverage and reception.

Part B: Design of Network Expansion Project

Whilst BMCC is not in a position to provide an expert opinion on the technical merits of the three options, general comments are provided based on the discussion paper content on how better coverage may be acquired to residents and visitors to the mountains. BMCC also believes that the way the overall program is being developed may disadvantage locations such as the Blue Mountains which may not be as commercially attractive to the MNOs as other areas less challenged by mountains terrain, and significant natural and scenic heritage issues.

Difficulties in establishing base stations.

The options presented for delivery of the program appear to rely upon the MNOs attention to the list of priority locations supplied by the Government. This may result in a selection of easy and more affordable sites being chosen above more difficult locations such as the Blue Mountains.

The terrain, scenic natural and built heritage significance of the Blue Mountains has meant that there have often been difficulties experienced in gaining approval for new tower locations. This is in part due to the mountainous terrain providing few locations with good potential coverage, and also to the need to minimise visual impact on the adjoining World Heritage Area. There have also been amenity and environmental issues experienced around some proposed locations.

BMCC would seek to work with providers to ensure suitable locations are identified and secured to ensure a good spread of coverage and to minimise duplication and impacts of towers.

Delivery Option1 – Single MNO contracted to deliver the programme.

BMCC is concerned that the MNO selection of locations may be based on financial returns by increased access to users as opposed to targeting Blackspot locations where user numbers are lower but reception issues are significant. This might also result in simpler, less regulated, tower locations (terrain, approvals etc.) being chosen above those assessed on a needs basis. This option also puts $80m with one MNO or consortium for delivery with no option for further consideration of other sites or MNO's.

Whilst open access arrangements might go some way to reducing a monopoly on this option, concerns still exist. The need for an open market approach would go some way to ensure a great competitive approach to service delivery.

Delivery Option 2 – Order of merit from base stations proposed by multiple MNOs

This option would create greater competition within the marketplace and value for money from program funding. It is acknowledged that the level of coverage may be less than Option 1 but as detailed in the discussion paper, it offers other options during the tender process for bidders to apply for groups of stations.

Delivery Option 3 – Network infrastructure provider to co-ordinate implementation

This option as outlined is likely to maximise competition, as it is in the interest of the network infrastructure providers to have as many MNOs operating on the infrastructure. It is hoped that this would result in greater coverage being offered.

PART C: $20 million Mobile Black Spots Project

BMCC questions why the program is split into two sections, and why some communities will be asked to assist fund infrastructure, whilst others will not. This approach does appear to favour communities that will have the capacity to contribute above those where this capacity is more constrained.

BMCC has in the past been able to provide suitable sites on public land for mobile towers where suitable sites have been otherwise unavailable. However, management of public assets requires BMCC to provide public benefit which includes a requirement for payment of market value through suitable lease arrangements. This would be expected to continue should BMCC consider use of public land for this purpose.

PART D: Utilising the NBN fixed wireless network

BMCC encourages the coordination of this program with the NBN rollout. The terrain of the Blue Mountains would favour the coordination and co-location of these facilities, and also the provision of services such as backhaul to mobile base stations.

Within the Blue Mountains currently broadband service is patchy and restricted to ADSL2 at best, with many areas unable to accommodate the requests for connection. There is a high need for provision of improved broadband and internet connection across the City. With the roll-out of NBN yet to commence in this area, and recognising the difficult terrain, the colocation of infrastructure makes particular sense in this locality.

BMCC and the local business community through Blue Mountains Economic Enterprise (BMEE) have been petitioning strongly around the need for priority delivery of the NBN across the LGA, and a summary of the issues is set out below.

> *The Blue Mountains has a diverse business community that relies strongly on internet and web based technologies to develop, send and receive their product and services. These businesses range from online sales & service, video and movie production, computer game construction, architects and drafts people, development of apps and hi-end websites, online magazines and production of videos and documentaries which all have specific requirements for greater download/upload capabilities. In many locations it is not possible to undertake business due to lack of adequate services.*

> *Important education and health services such as TAFE and our local hospitals currently experience restricted access to use of live streaming of interactive classes and online medical assessments. The NBN will provide significant advantages when accessing / sharing large graphic, video and movie files online, and this is critical to a key sector of business in the Blue Mountains. Additionally, the amenity of the area and attractiveness to future businesses and residents is also impaired by a lack of 'connectedness' caused by poor mobile, and broadband or internet access.*

> *Some households across the City remain without internet access, as there is no further capacity within the existing system. Recent community consultation conducted with residents throughout the Blue Mountains has highlighted this lack of internet access as a key issue for families. Through not having internet access many families can't access information on schools, employment and training programs, community health services and basic communication with the rest of the community. This is further exacerbated by geographic isolation; the same families can't access public transport which makes it difficult to travel to libraries, community centres and other locations where the internet is accessible.*

In response to the changing technologies being experienced across the tourism sector, which is a major employer and economic driver in the Blue Mountains, BMCC recently arranged for the commissioning of public Wi-Fi hotspots at its Visitor Information Centres. In doing so, BMCC was advised that due to the unavailability of ADSL sockets at the Katoomba exchange it has been placed on a waiting list that relies on existing subscribers to cancel their service. This is considered to be an unacceptable delay in BMCC's ability to perform as a high end service provider of one of Australia's premier tourism destinations.

Home Based Businesses

Census 2011 data indicates that 2,208 Blue Mountains residents work from home. This represents an increase of 10.5% from Census 2006 figures or an average annual growth rate of 2.1%. Home Based Business operators represented 6.3% of the total resident workforce in the Blue Mountains LGA in 2011. This is compared to 4% working from home in Greater Sydney. (*Source: Australian Bureau of Statistics, Census of Population and Housing 2006 and 2011.*)

With 5,607 businesses distributed across 27 villages that comprise the world's only city within a world heritage area, the Blue Mountains are a truly unique business environment. Less than two hours from Sydney's CBD, with competitiveness in the professional, scientific and technical, creative industries and education sectors, the Blue Mountains has critical connectivity needs. With innovative businesses exporting high-level knowledge, expertise and services, the Blue Mountains requires world-class digital infrastructure in order to maintain and increase its competitiveness. (*Source: Blue Mountains Economic Enterprises and the Blue Mountains Connected Communities Group; Nov 2013.*)

PART E: Development of List of Priority Program Locations

The paper does not outline the process for development of the priority list for location of new or upgraded towers. BMCC recognises that priorities will need to be established in consultation with various levels of government and key agencies, and is keen to participate and to make representations on the importance of connectivity to the Blue Mountains community and the many visitors to this region.

The discussion paper states that the criteria to be used for assessment of priority for locations of the additional towers would be to improve mobile coverage:

1. Located along major transport routes,
2. In small communities,
3. In areas that are prone to experiencing natural disasters, and
4. High demand during seasonal holiday periods.

The Blue Mountains Local Government Area clearly satisfies each of these criteria, as detailed below.

1. Located on Major transportation network

The Blue Mountains serves as a bridge between Sydney and Central Western NSW with the main transport corridors for NSW Government managed road and rail located on the central ridgelines across the City with the Great Western Highway, the Western Rail line and the Bells Line of Road. These two roads and the rail line provide the only direct vehicular and connections between Sydney and the Central West. These key transport corridors place pressures and impacts on the local Blue Mountains community and the natural environment, yet they also provide essential links for the Blue Mountains community, allowing access to local services along their routes and to employment and specialist services outside the City.

2. Small Communities

The Blue Mountains comprises 143,000 hectares of land in the Greater Western Sydney region, approximately 70% of the Blue Mountains LGA is classified as World Heritage National Park. Only 11% of the total land area is in private ownership. The City, with a population of approximately 78,000, is made of 27 physically discrete towns and villages which all have unique and specific needs. Generally, these villages are spread along the main transport spine of the Great Western Highway and the Bells Line of Road. The geography and terrain result in fragmented settlement pattern, and a degree of separation between and even isolation of settlements.

3. Prone to Experiencing Natural Disasters

The Blue Mountains LGA has a long history of natural disasters which have included severe bush fires, windstorms and thunderstorm events. As part of BMCC's preparedness it has a number of strategies and plans to manage such events and these have been detailed in a later section of this submission.

The Blue Mountains LGA has been subjected to a Natural Disaster Declaration and a State of Emergency have been declared under the *State Emergency and Rescue Management Act 1989* (the Act) on a number of occasions. Most recently, from 16 to 29 October 2013 the State Mine, Lithgow; Mount York, Mount Victoria; and Linksview Avenue, Springwood fires in the in the Blue Mountains triggered a declaration under Section 44 of the Rural Fires Act 1997. This declaration was in place between 17 October and 29 October.

Two hundred and ten homes were destroyed, and at least another one hundred and ten were damaged. Loss of other property such as motor vehicles, outbuildings and fencing was also significant. The region was declared a natural disaster zone following this event.

Another example is the destructive winds of up to 140km/hour which struck the Blue Mountains for three days from Tuesday 5 July 2011. The Upper Mountains were worst affected, particularly the towns of Blackheath, Mt Victoria and Mt Wilson. An estimated 14,000 persons were without power for an extended period. Major disruptions resulted to road and rail transport, financial loss was extensive on the local community, transport industries and other economies was significant. The region was declared a natural disaster zone following this event.

Blue Mountains City Council Strategies and Operation Plans
BMCC recognises the need for planning and provision of appropriate infrastructure to respond to the threat of natural disasters in the City, and is actively engaged in this activity. This is evidenced in BMCC's Strategic documents including *Sustainable Blue Mountains 2025 – the Community Strategic Plan –* and in BMCC's *Delivery Program 2013-2017* and *Operational Plan 2013-2014* one of the BMCCs Top Priority Actions for 2013-2017 is to:

- Support emergency management agencies and community to build emergency risk management capability.

Blue Mountains Local Disaster Plan - 2003
The Blue Mountains Local Disaster Plan 2003 has identified a number of hazard and high risk areas, refer table 1 below. This table demonstrated the type of hazards and level of risk that present to the community.

Table 1 *HAZARD & HIGH RISK AREAS*

TYPE	LEVEL	RESPONSIBILITY	COMMENT
Bushfire	Major	NSWRFS	Threat to all of City
Windstorm	Major	SES	Threat to all of City
Snow Storm	Moderate	SES	Threat to mid & upper mountains
Hazardous Materials	Moderate	NSWFB	Threat to the environment and all of City
Earthquake	Moderate	LEOCon	Threat to all of City
Transport Accident	Moderate	NSW Police / LEOCon	Threat to aircraft, rail and road corridor
Utility Failure Power Water/Sewer Gas	Moderate Moderate Moderate	Integral Energy Sydney Water AGL	Threat to all of City Threat to all of City Threat to all of City
Flooding	Minor	SES	Wentworth Falls Dam, some isolated locations (flash flooding)

Management of Natural Disasters:
There is a high need for good mobile coverage across our city in order to provide adequate notification of emergencies such as bushfires. The current lack of mobile coverage and internet access means that many households across the City are not able to access emergency notifications, and are reliant upon radio and TV coverage to maintain currency of information during emergency situations.

The current practise of emergency services for notification of affected residents at the time of the incident is via SMS technology which is delivered in two ways. These two methods are either via billing address where be a message is sent to the phones known billing address in the affected area, the other being a tower based warning system which contacts all phones current in range a specific tower in the affected area. The Tower Based Warning System which would be improved significantly if additional towers were achieved.

The tower based warning system would also provide additional coverage for visitors to the mountains who become lost, disoriented and require medical treatment whilst bush working or undertaking other adventure actives in the mountains. Currently the lack of coverage has complicated the delivery of rescues where visitors have become disoriented and lost. A lack of mobile coverage within premier tourist locations has also unfortunately contributed towards a number of deaths in the Blue Mountains National Park where visitors have become disoriented and lost, and subsequently perished.

Vulnerable Communities
The Blue Mountains Local Government Area has a number of high-risk community groups including: hospitals, nursing homes for the elderly and the disabled and special schools. These vulnerable communities are in many cases located within areas prone to natural hazards of bushfire and wind storms.

For example, during the October 2013 bushfires of Springwood there was urgent need to evacuate patients from Springwood Hospital as well as a number of local schools were in lock down unable to evacuate during the bushfire crisis. This situation was greatly exacerbated by the poor mobile communications available for use by emergency services.

4. High Demand During Seasonal Holiday Periods
The Blue Mountains attracts over 4 million visitors per year making it one of the top three tourist attractions in Australia. These visitors are local, interstate and international visitors. Whilst the visitation numbers are constantly high, peaks are experienced during weekends, public holidays and summer holiday season. The resultant increased demand for mobile reception over these peak periods is noticeable.

As the Blue Mountains is a premier international and national tourist destination it is critical to provide adequate service for the techno savvy visitors to access visitor information while visiting the City. There is a high visitor demand for digital navigational systems and visitor information and for improved access to the range of emerging technologies such as smart phone apps and QR Codes which provide maps and information.

Currently this demand can only be met in certain locations and during non-peak periods.

Suggested additional criteria priority assessment: Industry and employment creation
BMCC suggests that the choice of priority locations for the program needs to also recognise the impact poor mobile coverage (and internet access) has upon the potential for the growth of small to medium sized businesses. The Blue Mountains has strong evidence of hindrance to growth of business due to poor mobile and data coverage, including within established commercial and residential areas.

In the context of reducing transport use and climate change impacts BMCC encourages the Government to follow a clear strategy to support provision of communications infrastructure to such businesses within existing and new residential and commercial areas and designated employment lands. Attention should also be given to the role that home-based businesses can play in a coordinated strategy for employment.

This is especially suitable for the Blue Mountains, where land available for industrial and employment development is highly constrained and the focus is upon growth of clusters for small and medium sized businesses. In order to compete with adjoining areas of western Sydney, such as Penrith Local Government Area, the Blue Mountains needs equal access to modern communications.

Summary
Failure to address the current problems with mobile coverage black spots across the City will have significant long term economic as well as safety implications for natural disaster management including national and international tourism, and for general communication within the local community.

BMCC understands that other Blue Mountains based emergency services agencies such as the NSW Police, Rural Fire Service and NPWS will also be making independent submissions on this discussion paper.

Should you wish to discuss the comments further please contact ▮▮▮

Yours faithfully,

STEVE CORBETT
Director City and Community Outcomes