



# mobile inSite

news, issues and science on mobile telecommunications deployment

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## Editorial

**Welcome to the November 2010 edition of *Mobile InSite*, the Mobile Carriers Forum's newsletter on news, science and policy decisions about mobile telecommunications networks.**

Our lead article for this edition features a commentary from one of the scientist responsible for setting Australia's radiofrequency fields safety standard, Dr Lindsay Martin from the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). Dr Martin explains how the safety standard limit for mobile phone towers is set and why mobile phone towers are considered safe. Importantly, Dr Martin also addresses why there is no good reason to introduce exclusion or 'buffer' zones between mobile phone towers and schools, highlighting the fact that distance is not a good indicator of exposure.

Continuing the theme on the proximity of mobile phone towers to residential areas, we also cover a judgement handed down by the Victorian Civil and Administrative Tribunal (VCAT) in June which found mobile phone towers need to be visible. VCAT senior member Russell Byard said

it needed to be appreciated that mobile phone towers are necessarily visible, and that a site with a visible tower can also be a favourable site for the community.

The National Broadband Network (NBN) also gets a run in this edition, with the announcement by the NSW Government that it will amend the State's planning policy to streamline planning processes for telecommunications infrastructure. The new policy will make NSW a national leader in the deployment of mobile telecommunications infrastructure, and will particularly benefit rural communities.

Also, the President of the Australian Local Government Association, Cr Geoff Lake, has presented NBN Co with a set of principles for the engagement of councils and local communities when installing infrastructure in the community. Cr Lake highlighted the importance of effective community consultation, something the mobile phone industry is committed to through the code-of-practice which covers the siting of mobile phone base stations. The *Industry Code for the Deployment of Mobile Phone Network*



*Infrastructure* is designed to increase the transparency and accountability of carriers during network rollout, in order to address community concerns.

Other articles covered in this edition include a scientific review by the World Health Organization of all the research on the possible health risks posed by mobile phone towers, the Tasmanian Planning Commission's draft planning directive for minor infrastructure and the Queensland Government's decision to remove the telecommunication facilities code from the draft Queensland Planning Provisions.

As always we appreciate any feedback from our stakeholders within industry, government and the community about any of the stories in this edition.

Matt Evans  
Program Manager  
Mobile Carriers Forum

## Buffer zones to protect schools are not needed says gov't radiation safety agency

**There is no good reason to introduce exclusion or 'buffer' zones between mobile phone towers and schools, says the Federal Department of Health.**

Dr Lindsay Martin, manager of the electromagnetic radiation section of the [Australian Radiation Protection and Nuclear Safety Agency](#) (ARPANSA) – an agency of the Federal Department of Health – reassured the public about the safety of base stations in an interview with Perth radio station *6PR* in August.

Responding to the concerns of residents about a proposed Telstra tower located near a school in the suburb of Mullaloo in Perth, Dr Martin said the proximity of a base station did not directly relate to a higher or lower exposure level.

“We don't believe in rigid distances from base stations to schools and things like that, because they don't make a lot of sense. Distance is not a good indicator of exposure,” Dr Martin said.



Dr Lindsay Martin, manager of the electromagnetic radiation section of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

He added that scientific research had found no evidence of any adverse health effects.

“We've got no evidence that they're dangerous at all and we've got no good reason to believe that they would be dangerous. Certainly, you shouldn't go up and hug an antenna because then you would likely exceed the public exposure level, and we don't want people to do that.

“That's why there are warning signs on them, to stop workers who might go up to paint the tower or something, being exposed. But we're not aware of any good evidence that links them to disease, or good theories or reason to expect that to exist either,” Dr Martin said.

ARPANSA is responsible for Australia's radiofrequency fields [safety standard](#) and regularly conducts [audits](#) of mobile phone base stations around the country to ensure compliance with the standard.

“Our standard sets levels, based on what scientific evidence we've got. But it also introduces an acknowledgement of the fact that we don't know everything. It introduces a minimization requirement to minimise the exposure to the public, where you can do that without stopping what you're trying to

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## Buffer zones to protect schools are not needed says Gov't radiation safety agency

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do. Everyone seems to accept we need good communications in the country. But the carriers, the mobile phone companies, are required to take into account this requirement and that's done through a code of practice that they're required to follow."

Dr Martin said Australia's mobile phone carriers are required to consider community sensitive locations such as schools and kindergartens.

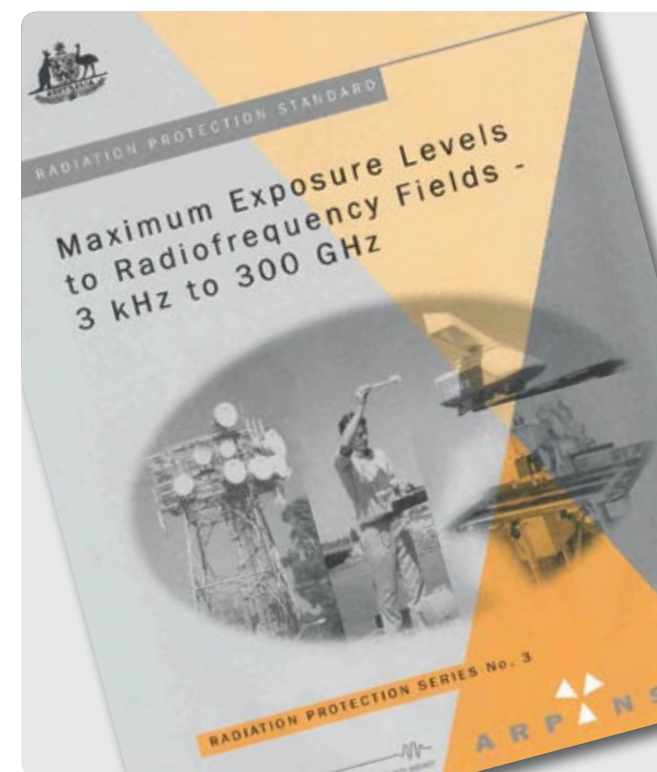
"There's not a lot of evidence that there's good reason to worry about those places, but we all think children deserve that extra little bit of caution. So the carriers are required to take that into account," Dr Martin said.

Telstra has announced it will be considering alternative locations for the base station, and Dr Martin was asked whether this was a concession or acknowledgement that mobile phone towers are dangerous.

"I'm sure it's not a concession that Telstra believes they're dangerous. Telstra have a very large number of mobile phone towers around Australia and they follow Australian regulations and rules. And those regulations are based on ARPANSA's advice that – of what safe levels are and generally the absence of scientific evidence that there's any reason to fear these devices."

Dr Martin said there are currently between 10,000 and 15,000 mobile phone base stations across Australia. He said the size of the towers and antennas bore no relationship to the public exposure levels.

"They're fairly low powered transmitters. They're not like broadcast radio transmitters. They've got fairly big antennas, so they look a bit impressive. But the size of the antenna doesn't relate to the power of the transmitter."



## NSW government delivers streamlined planning for crucial mobile networks

**The Mobile Carriers Forum (MCF) welcomed the NSW government's announcement in July that it is taking a national lead on reform to state planning laws in order to respond to skyrocketing demand for new mobile telecommunications infrastructure and services.**

NSW Minister for Planning, Tony Kelly, said streamlined planning processes would make NSW a national leader in the roll out of the Federal government's National Broadband Network, and would particularly benefit rural communities.

"The delivery of a \$43 billion National Broadband Network requires a great deal of infrastructure such as cabling, satellite dishes and telecommunications towers," the Minister said.

"The NSW government has acted to ensure these essential facilities can be rolled out efficiently



NSW Minister for Planning Tony Kelly said the new policy would help ensure the efficient and effective roll out of essential telecommunications facilities.

and effectively, while still ensuring community safety and appropriate protection of the local environment and amenity."

Proposed amendments to the Infrastructure State Environmental Planning Policy (SEPP) were publicly exhibited last year along with a draft Telecommunications Guideline.

The exhibited drafts outlined the types of infrastructure that, subject to strict criteria, could be processed as 'exempt' or 'complying' development – that is, either with no requirement for approval at all or through a simple 10-day approval system.

Mr Kelley said this approach removes the need to lodge a time-consuming and costly development application (DA) with the local council for a number of low-impact facilities. He said under the new measures, all new telecommunications facilities in NSW must be consistent with a set of principles covering issues such as site selection, design, construction and operation.

A number of changes were made in finalising the policy based on feedback received in submissions, including:

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## NSW Government delivers streamlined planning for crucial mobile networks

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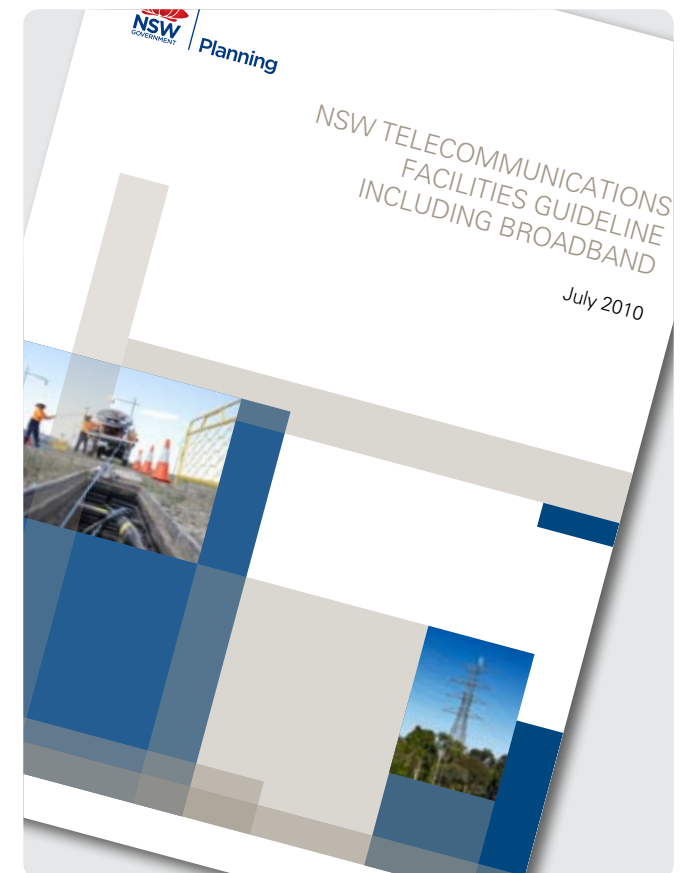
- Stronger incentives for the co-location of telecommunication towers or extension of existing facilities rather than building a new tower;
- Ensuring consultation is compliant with the legally-enforceable industry code requiring carriers to adequately consult local communities when new infrastructure is being planned and installed;
- Expanding the range of facilities to which visual impact restrictions apply in heritage areas;
- Emphasising health and safety requirements – with all types of exempt or complying development to meet national exposure standards as published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA); and
- A requirement that land associated with all underground telecommunications facilities be restored to a standard comparable to its condition prior to installation.

MCF Program Manager, Matt Evans, praised the NSW government's vision and foresight in delivering Australia's leading framework for the deployment of advanced telecommunications infrastructure.

"The NSW government's approach responds to the increasing demand for new telecommunications infrastructure delivering broadband services such as video-conferencing, interactive services and video streaming," Mr Evans said.

"These are services that are increasingly important in the day to day running of our society and the ongoing health of our modern economy. They are also services that rely on broadband connectivity.

"These amendments to the State's planning system now clear the way for improved telecommunication services to the people of NSW and represent a regulatory environment that is superior to any other Australian state."



## Swiss scientists say evidence of health effects from base stations is not strong, but more long term research on children is needed

**Evidence that mobile phone base stations cause headaches, dizziness, nausea and disturb sleep or mood is not strong, but more long-term research is needed, Swiss scientists have found.**

Dr Martin Rössli, and three other experts from the Swiss Tropical and Public Health Institute and University of Basel, looked at both randomised human laboratory trials and research on people exposed to base station emissions in everyday environments.

The [systematic review](#) was conducted for the World Health Organization and the researchers concluded there is strong evidence of no relationship between the exposure and ill health.

“In conclusion, our review does not indicate an association between any health outcome and radiofrequency electromagnetic field exposure from MPBSs [mobile phone base stations] at

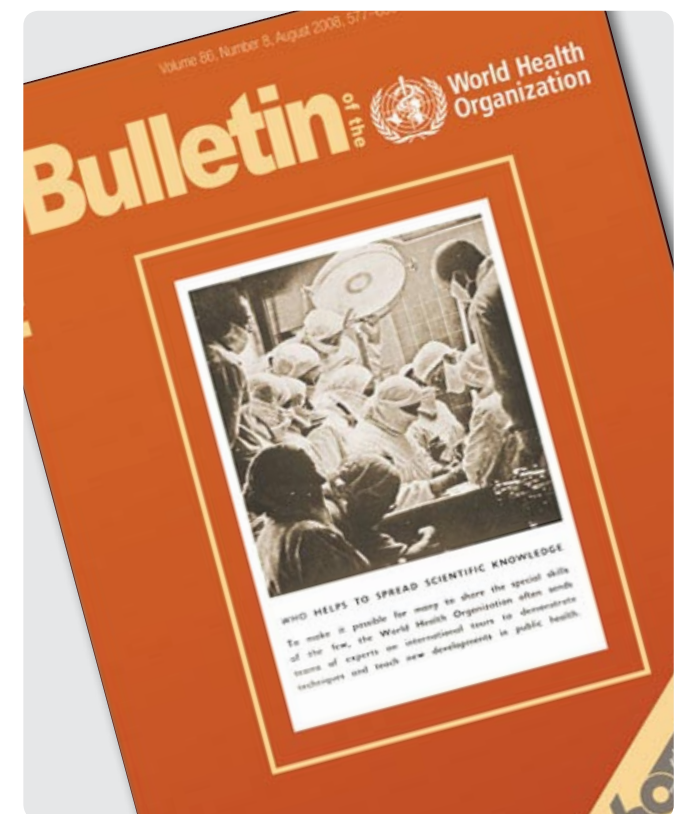
levels typically encountered in people’s everyday environment,” said lead author Dr Rössli.

“The evidence that no relationship exists between MPBS exposure and acute symptom development can be considered strong... because it is based on randomized trials applying controlled exposure conditions in a laboratory.”

The researchers also considered long-term population studies and were unable to find firm conclusions due to lack of evidence particularly for children.

“Regarding long-term effects, data are scarce and the evidence for the absence of long-term effects is limited. Moreover, very little information on effects in children and adolescents is available and the question of potential risk for these age groups remains unresolved.”

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## Swiss scientists say evidence of health effects from base stations is not strong, but more long term research on children is needed

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“Where data are scarce, the absence of evidence of harm should not necessarily be interpreted as evidence that no harm exists. Further research should focus on long-term effects and should include children and adolescents,” Dr Rösli said.

Although they considered 134 potential research papers, after selecting suitable and quality studies, the researchers considered only 12 population studies and five randomised human laboratory trials.

Most of the studies considered if symptoms such as headaches, nausea, dizziness and sleep disturbance could be caused by the radio waves emitted by base stations.

“In summary, when data from all the randomized trials and epidemiological studies were considered together, no single symptom or symptom pattern was found to be consistently related to exposure,” Dr Rösli said.

However, the conclusion of this WHO sponsored research, is in stark contrast to a [similar analysis](#) conducted by Australian neurosurgeon, Dr Vini Khurana and Swedish oncologist Dr Lennart Hardell.

Published earlier this year in the *International Journal of Occupational Environmental Health*, their paper also reviewed the studies that reported health effects of populations living near base stations.

“We found that eight of the 10 studies reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances < 500 meters from base stations,” they concluded.

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## Swiss scientists say evidence of health effects from base stations is not strong, but more long term research on children is needed

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However, the Swiss experts cut out many of the studies which they said were obviously biased such as those that selected participants who already believed a nearby base station had caused their perceived symptoms or those that allowed the participants to guess how close their nearest base station was to them.

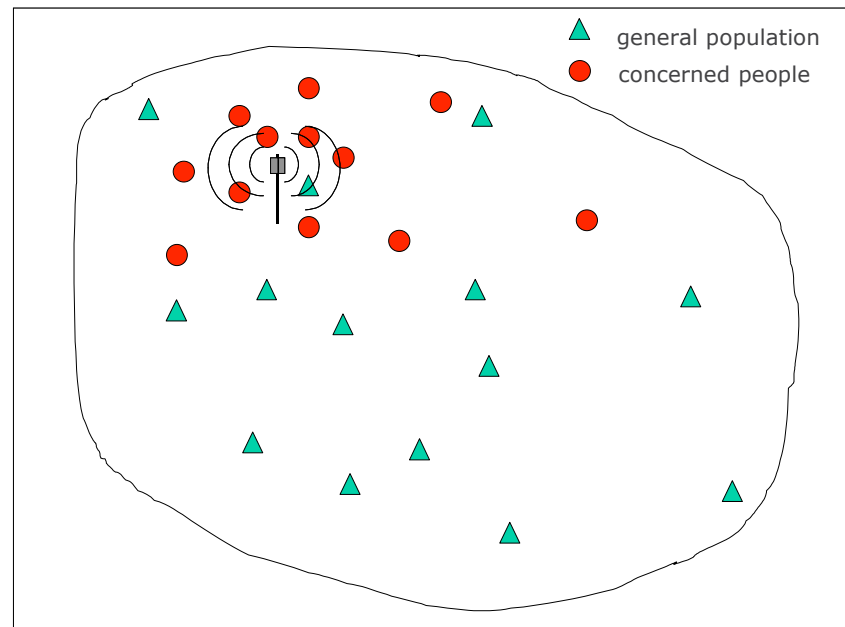
Therefore, the Swiss researchers did not consider many of the papers included by Khurana and Hardell.

Despite their findings, Khurana and Hardell's review did acknowledge the research papers they considered had these sorts of biases.

"It should be pointed out that the overall findings of health problems associated with base stations might be based on methodological weaknesses, especially since exposure to RF electromagnetic radiation was not always measured," they also concluded.

Epidemiologic studies

### Selection bias



The researchers cut out studies that were biased because they selected participants who already believed a nearby base station had caused their symptoms."

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## Consultation with local communities the key to successful NBN rollout

**Effective consultation with the local community is the key to a successful rollout for the Federal Government's \$43b high speed Internet network – the National Broadband Network (NBN) – says President of the Australian Local Government Association (ALGA), Cr Geoff Lake.**

Cr Lake recently presented NBN Co – the government owned enterprise responsible for building the network – with a [set of principles](#) for the engagement of councils and local communities at the National General Assembly of Local Government in Canberra in front of 700 mayors and councillors from across Australia.

“It is imperative that the Australian Government and NBN Co consults effectively at the community level so that the implementation is as unobtrusive as possible,” Cr Lake said.

“The principles stress the importance of observing local planning controls, the need to preserve as many land and road reserves as possible and the desirability of flexible business models in order to minimise disruption to communities as the roll-out gains momentum.”

The principles also ask that councils and the community be informed of plans well in advance of the rollout and empathise the negative impact of overhead cables on local amenity.

Launched in 1995, Australia's Pay TV industry had a turbulent and slow start which included widespread council and community concern about the rollout of 'ugly black cables' which were visible under existing power lines in residential streets.

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Australian Local Government Association President Cr Geoff Lake says consultation with local communities is imperative.

## Consultation with local communities the key to successful NBN rollout

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“The experience of the roll out of pay TV cable in the 1990s provides a good point of reference on what not to do when it comes to working with local communities. We need to make sure we learn from those mistakes and work in partnership to get the NBN deployed efficiently and with minimal disruption to local neighbourhoods,” Cr Lake said.

In response to similar concerns about the look of base stations, the Australian mobile phone industry, in conjunction with local councils, community groups, the unions and the government, developed a code-of-practice which covers the siting of mobile phone base stations.

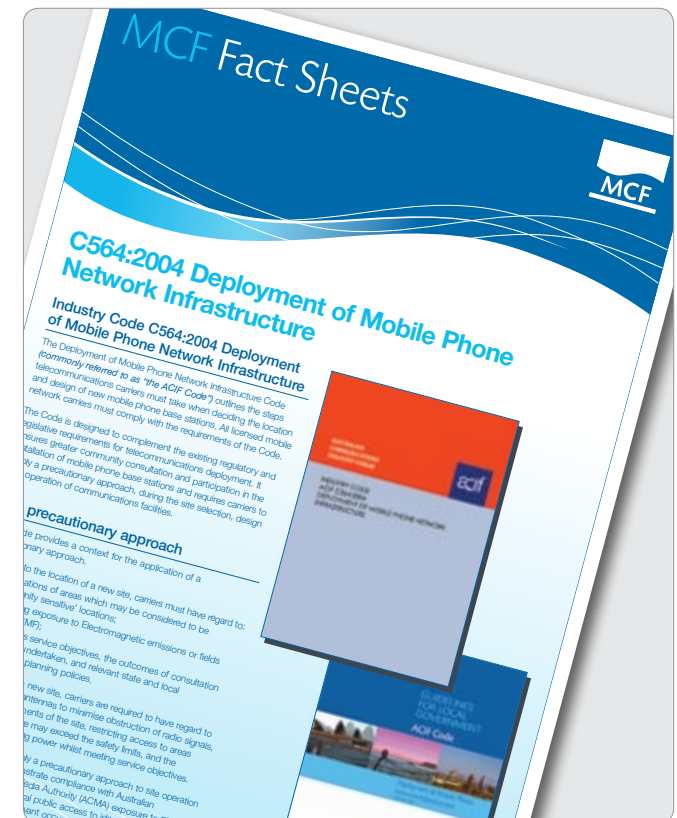
The [Industry Code for the Deployment of Mobile Phone Network Infrastructure](#) is registered with the Australian Communications and Media Authority.

“It was designed to increase the transparency and accountability of carriers, during network rollout, in order to address community concerns,” MCF Program Manager Matt Evans said.

“Under the code, a carrier must inform councils about all new base stations and councils are asked to comment on the carriers’ plans to inform and consult with the local community.

“This consultation requirement ensures communities are well-informed of proposed activity and while carriers retain the final decision about construction for low-impact facilities, it promotes transparent decision-making and justification for such decisions,” Mr Evans said.

The code also covers how the community can ‘have their say’ when mobile phone base stations are to be installed in their area, and what they can do if they have concerns about a mobile phone carrier’s fulfilment of the code, Mr Evans said.



## Tribunal says mobile phone towers need to be visible

**Mobile phone towers need to be visible and the site chosen by Optus was a favourable site for the community, the Victorian Civil and Administrative Tribunal (VCAT) has ruled when approving the installation of a 43-metre Optus mobile phone tower in the Ballarat suburb of Mt Clear.**

Opponents of the tower raised many arguments against the site, including the tower's visual impact, possible health effects, lightning and fire risk, impact on local wildlife, and the possible effect on land values.

VCAT senior member Russell Byard rejected all the arguments put forward by the council and concerned members of the community, [ruling](#) that the site chosen by Optus should be considered a 'favourable site'.

"It has to be appreciated that facilities of this sort are necessarily visible," Mr Byard said.

"In physical, topographical and locational terms, including the location and proximity of other facilities, this has to be regarded as a favourable site," Mr Byard said.

"What is needed is to recognise the need for the facilities, recognise that they will have some impact upon the area in which they are established, but to minimise that impact."

No evidence was produced to show that this is an unfavourable site, indeed there is much in its favour and it is more remote from the frequent comings and goings of people than many others, he said.

Mr Byard noted Optus' proposal received a recommendation for approval from the Ballarat City Council's planning officers.

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## Tribunal says mobile phone towers need to be visible

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He added that council's own municipal strategic statement affirms the importance of these facilities and the need to strike a balance between providing the important facilities on the one hand and to protect and minimise adverse amenity impacts on the other.

"So far as the proposal being suggested to be contrary to orderly planning, I think it is fair to say that this ground was not pressed. In any event, I consider it to be unsustainable, I can see no justification for this suggestion. If relevant at all, I think the proposal accords with orderly planning," Mr Byard said.

### Health risk allegations rejected

In regards to the possible health risks posed by the tower, Mr Byard said he is not satisfied that there is a health reason for refusing the proposal, either in relation to health of human beings or animals.

"There is ongoing and often ill-informed speculation about health hazards associated with electromagnetic radiation from such facilities. I am unimpressed with a considerable series of short "grab" quotations presented."

### Fire risks addressed

On the issue of fire risk, Mr Byard said the Country Fire Authority has indicated that it has no objection to the proposed permit.

"It is suggested that there would be a danger of attracting fire to the area because a high metal tower could attract lightning. Although this is true, the facility is provided with a proper lightning conductor which would earth the lightning and reduce the danger. If not attracted to the tower and lightning conductor, such lightning may be more likely to strike trees or otherwise start fires," Mr Byard said.

"There was a suggestion that there is advice not to stand within 2 metres of a pole that might be struck by lightning. No doubt that is good advice. People will not be in a position to stand in such proximity as the area will be fenced."

### Land value concern not proven

Finally, Mr Byard said no evidence exists that land values would decrease because of the presence of a mobile phone tower.

"This is not a planning consideration. There is no evidence that land values would be reduced. If they were, it would be as a result of reduced amenity. It is amenity rather than its manifestation in land values that is relevant for planning purposes. I have already concluded that the amenity loss is notably minor and well outweighed by planning benefits," Mr Byard said.

## Network carriers explain the need for more towers

**The enormous growth in the adoption of smartphones with mobile broadband access and an ever increasing number of Australians making mobile phone calls and sending texts has resulted in a need for more mobile phone towers to cope with the increase in demand, according to Australia's three mobile network carriers.**

The Mobile Carriers Forum (MCF) released a new [fact sheet](#) in November explaining the reasons why more mobile phone network antennas and towers are required in areas already receiving mobile phone coverage.

The new fact sheet is a response to complaints from some communities that network carriers are installing unnecessary mobile phone antennas and towers in areas that already have mobile phone coverage and that they don't understand why new network infrastructure is required in areas already being serviced.

"As the number of mobile phone users increases and the number of phone calls made increases,



then pressure is put on mobile phone networks to continue to provide the level of service people have come to expect," MCF Program Manager Matt Evans said.

"The rate of change in mobile network technology is rapid and these advances have led to enormous growth in the uptake of mobile

broadband. Users accessing the Internet via mobile broadband enabled laptops and handsets place significant additional demand on mobile phone networks. In 2009, mobile broadband subscriptions increased by more than 100 per cent."

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## Network carriers explain the need for more towers

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Mr Evans said areas such as business districts, major retail and shopping centres and suburban communities require more network infrastructure to continue to expand and cater for the growing mobile phone and data demands.

“Often new base stations, referred to as ‘infill sites’, are required to be built to cater for the increased phone and wireless device use. Their target coverage area can be very limited in size to just a few hundred metres,” Mr Evans said.

“This means that new base stations are often required in areas that already have mobile phone coverage from existing base stations, but the existing base stations cannot carry the amount of traffic that is generated in that geographical area. Quality mobile services can only be maintained where base stations are located in close proximity to the user.”

### How does a mobile phone network operate?

Mobile phone networks are made up of base stations that send and receive mobile phone signals. The base stations are linked to the rest of the mobile and fixed phone networks and pass the signal or call on to those networks. Often new base stations, referred to as ‘infill sites’, are required to be built to cater for the increased phone and wireless device use. This means that new base stations are often required in areas that already have mobile phone coverage from existing base stations, but the existing base stations cannot carry the amount of traffic that is generated in that geographical area.

“Mobile phones continue to play an important role in the lives of Australians, from providing a fundamental ability to be in contact with family and friends, to operating businesses more efficiently and effectively and also by offering a contribution to create a low-carbon

economy through ‘virtual’ alternatives, such as video-conferencing and smart logistics solutions. Networks need to continue to evolve in order to be able to cater for the ongoing and varied applications of mobile phone technology.”

## Tasmanian Planning Commission scraps draft planning directive

**The Tasmanian Planning Commission has been forced to recommend an overhaul of the State's draft planning directive for minor infrastructure following a panel report by the Commission which found the directive creates more uncertainty and may produce unintended consequences.**

The Commission's report recommended the directive be scrapped and went as far as saying the flaws in the directive are so severe it "is not capable of being modified into a form that would make it suitable to be issued."

"The [draft Planning Directive No 2 - Underground and Minor Aboveground Infrastructure](#) (draft Planning Directive) attempts to express a planning policy that a planning permit is not required when minor infrastructure is installed because there is no, or negligible impact on land

use. However, the draft Planning Directive has not been cognisant of the complexities of the current regulatory regimes. The result is a directive which creates more uncertainties for planning authorities, developers and the public and may thereby produce unintended consequences," the Commission said.

As reported in the [July edition of Mobile InSite](#), the Mobile Carriers Forum (MCF) made a submission to the Tasmanian state government identifying potential lost opportunities for the directive to fast track approval of certain types of facilities that have negligible impact and are exempt from approval in other states.

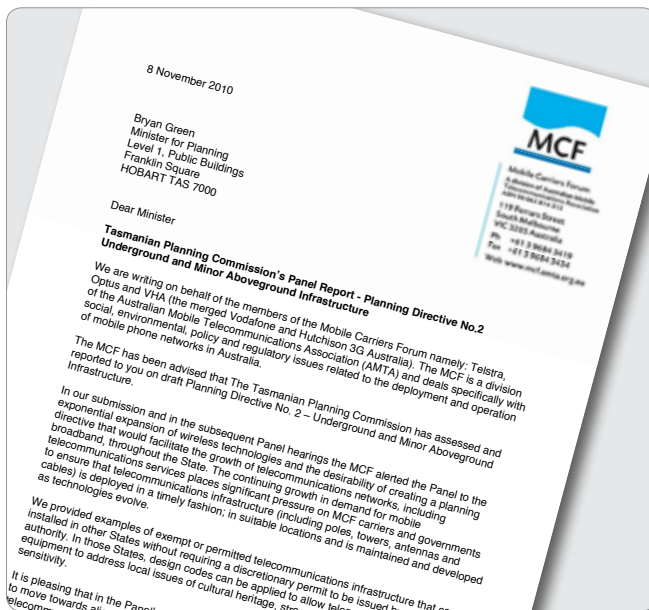
The [Commission](#) acknowledged the MCF's submission in its report, saying the mobiles industry's suggestions had merit.

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## Tasmanian Planning Commission scraps draft planning directive

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The MCF sent a letter to Tasmanian Minister for Planning Bryan Green saying it would welcome the opportunity to be involved in the drafting of the Telecommunications Schedule.

“The Panel considers that the scope of the draft Planning Directive is not sufficiently broad, in some respects, to accommodate a streamlined process for installing the emerging networks of optical fibre and wireless communications. However, the Panel considers that a preferred approach would be to redraft an updated Telecommunications Schedule for insertion into planning schemes, in the form of qualified or conditional exemptions, supported by clear definitions and design codes... Nevertheless, the Panel strongly recommends that urgent attention be given to seeking further consultation with providers, regulators and other stakeholders in the telecommunications industry so that an appropriate Telecommunications Schedule can be drafted.”

In a letter to the Tasmanian Minister for Planning, Bryan Green, MCF Program Manager Matt Evans said the MCF will continue discussions with the Tasmanian government about when the urgent review of the Telecommunications Schedule will be conducted.

“It is pleasing that in the Panel’s Report it has agreed with the MCF’s assessment of the need to move towards alignment with a national approach by including exempt or permitted telecommunications infrastructure within standard planning instruments in Tasmania, specifically within the schedule to Tasmanian Council Planning Schemes. The MCF would welcome the opportunity to be involved in the drafting of an appropriate Telecommunications Schedule,” Mr Evans said.

## Mobile carriers call on Queensland government to reinstate telco code

**The laws governing the installation and upgrade of telecommunications infrastructure in Queensland are currently in limbo following the Queensland government's decision to remove the telecommunication facilities code from the draft Queensland Planning Provisions (QPP).**

The Mobile Carriers Forum (MCF) urged the Queensland government in November to continue with its plans to reform the state's planning and development rules and requested the telecommunication code be reinstated to provide more clarity and certainty for Australia's three network carriers.

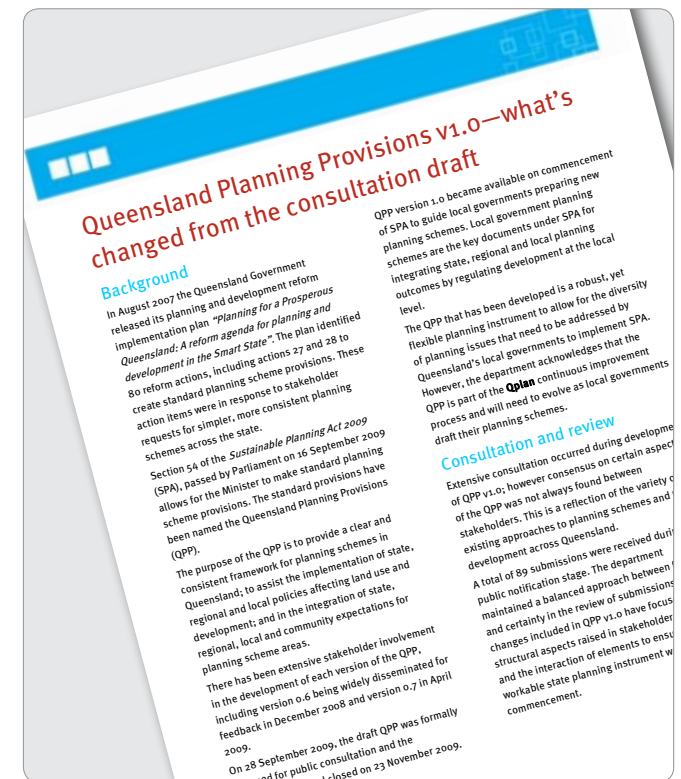
As a result of stakeholder feedback through the consultation process late last year, the Department of Infrastructure and Planning decided there was general support for a number

of changes to the QPP. This included the temporary removal of the telecommunication facilities code to review the workability of the code.

In a letter to the Queensland Minister for Infrastructure and Planning, Stirling Hinchliffe, MCF Program Manager Matt Evans said the status of the telecommunications code was of crucial importance to the industry's investment in infrastructure in the state.

"The mobiles industry has worked with the Coordinator General's Office since 2005 on this reform. We have made significant progress, but the process has now stalled. We are keen to ensure that all of the gains made since 2005 are not lost," Mr Evans said.

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## Mobile carriers call on Queensland government to reinstate telco code

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“At present the MCF is working with other states who are reviewing or actively reforming their state planning and development approval systems, including the introduction of consistent state wide controls for telecommunications facilities. We note that in NSW and Victoria the existing provisions include a broad level of consistency and exemption for very specific types of telecommunications facilities that comprise a modern telecommunications network. It is surprising to us that the Queensland State government has not worked with other states to ensure a degree of consistency.

“With the emergence of mobile broadband over the past few years, there are now more mobile phone subscriptions in Queensland than there are people. In order to cater for this demand, the

three mobile network carriers operate networks comprising telecommunications facilities on more than 3300 sites across Queensland. In addition to their existing networks they deploy and maintain many hundreds of new mobile network facilities across the state each year. The mobile network carriers will continue to make a significant investment in network infrastructure to cater for the significant increase in mobile broadband subscribers.

“The MCF strongly encourages the Queensland government to review and reinstate the telecommunications code within the QPP to ensure that infrastructure can be deployed to meet the needs of consumers in all parts of the State in a timely manner,” Mr Evans said.

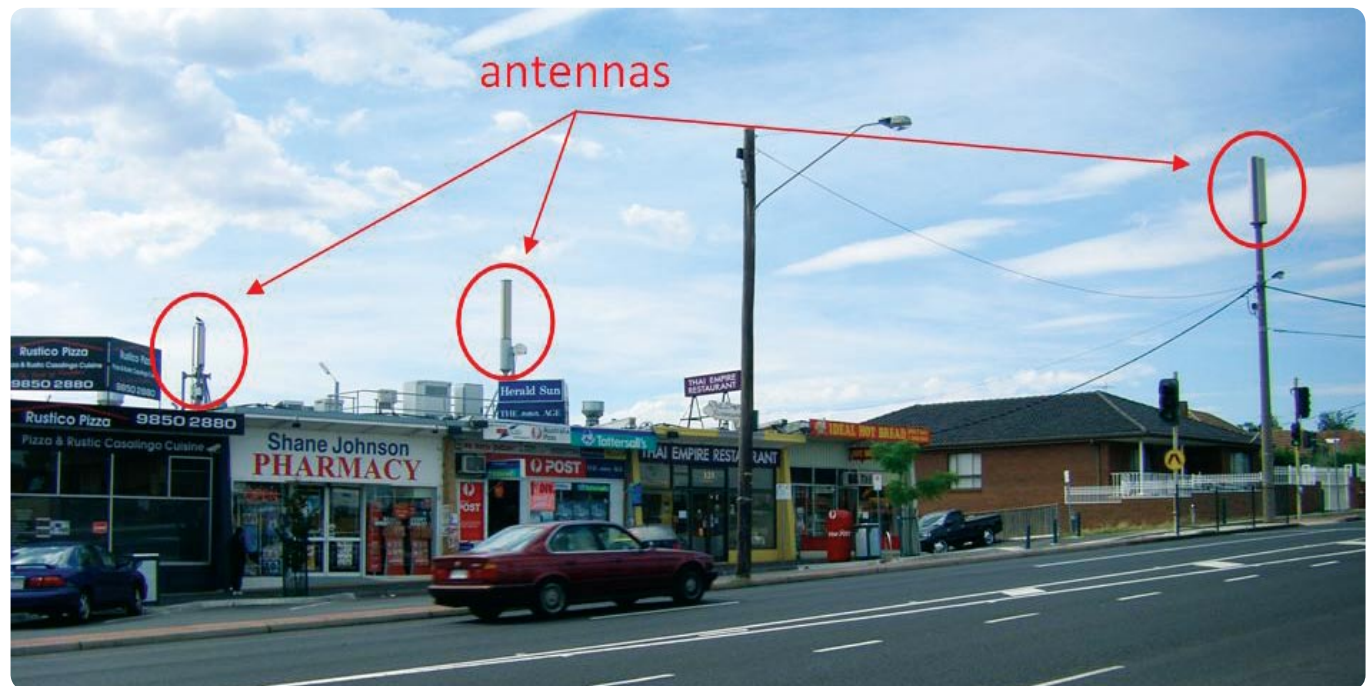


# Radiation from combined mobile phone base station sites are still well within safety standards finds Federal Health Department check

**A Federal Health Department check on the radiation emitted by mobile phone towers – even when they included a number of antennas co-located on the same tower – are still well within Australia’s safety standards.**

A rolling measurement program undertaken by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has again shown that Australia’s telecommunications carriers are operating their antennas and base stations at levels well below the allowable limit, said MCF Program Manager Matt Evans.

The [latest survey](#) of a site at Bulleen East in Victoria which included a number of co-located telecommunications services all operating from the one site still operated at around 75 times below the safety standard limit, even though the antennas were mounted on building rooftops and were relatively close to the ground in comparison to antennas that are high up on towers.



Measurements by ARPANSA found these co-located antennas in Bulleen East still operate at around 75 times below the safety standard limit, even though they are mounted on building rooftops and are relatively close to the ground.

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## Radiation from combined mobile phone base station sites are still well within safety standards finds Federal Health Department check

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The maximum level of RF emissions from this base station site (operating at full power) determined from measurements at locations around the site was just 1.334% of the Australian safety standard limit for public exposure, [ARPANSA reported](#).

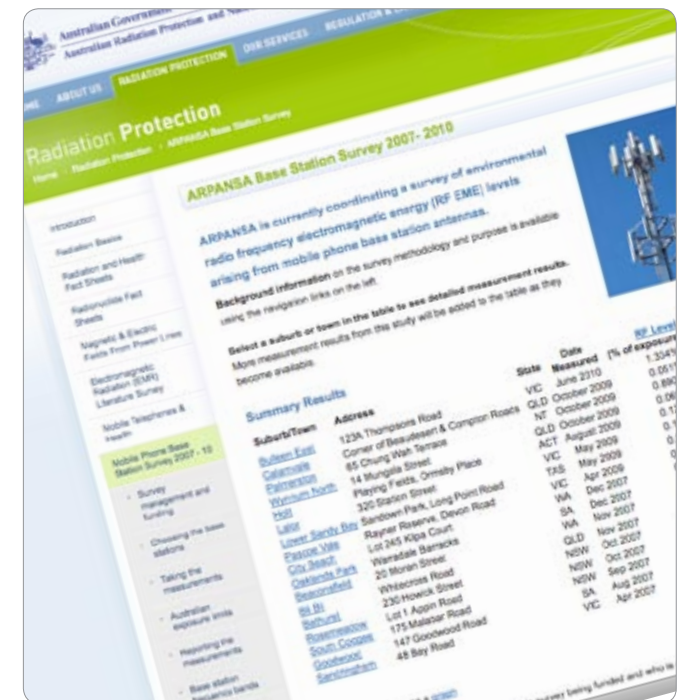
“The tests managed by the government clearly show the significant margin of safety between the maximum power of a base station with multiple services operating at the same time and Australia’s safety standard limits,” MCF Program Manager Matt Evans said.

“We hope that people who have concerns about safety around base station sites – including those with a number of co-located services on the one tower – can take some comfort from these results.”

The base stations sites tested are [selected](#) to cover all carriers, technologies, geography and type of installations and also if they caused significant community concerns.

Local councils were invited to nominate base stations to be checked along with suggested sites by members of the EME Reference Group. This group includes representatives from consumer organisations, the telecommunications industry, the health sector, academic organisations, other government organisations and community groups.

It was established to allow community input into the Committee on Electromagnetic Energy Public Health Issues (CEMEPHI) a body that coordinates Australian Government action on electromagnetic energy public health issues.



## Canadian health authorities say Wi-Fi in schools is safe

Canada's top health watch dog released a statement in August to try and reduce parent's concerns that Wi-Fi systems installed in Canadian schools do not pose a risk to their children's health.

Health Canada issued the statement in response to an outcry from concerned parents and teachers who claimed Wi-Fi emissions were responsible for numerous health ailments.

"Based on scientific evidence, Health Canada has determined that exposure to low-level radiofrequency energy, such as that from Wi-Fi systems, is not dangerous to the public," the [statement](#) says.

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## Canadian health authorities say Wi-Fi in schools is safe

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“Radiofrequency energy levels from Wi-Fi equipment in all areas accessible to the general public, including school settings, are required to meet Health Canada’s safety guidelines,” said Health Canada.

“...there is no convincing scientific evidence that this equipment is dangerous to schoolchildren or to Canadians in general.”

The health controversy started when the Simcoe County District School Board, in central Ontario, installed wireless internet access in classrooms.

A group of parents began to notice their children started to get headaches, nausea, vertigo, and insomnia and the problems seemed to clear up on weekends and school holidays.

They formed the [Simcoe County Safe School Committee](#) when, they say, they realised their children had a ‘novel group of symptoms’.

The parent’s concerns prompted some teachers to propose a province-wide ban on Wi-Fi in Ontario elementary schools. However, the proposal was firmly rejected in a vote at the Elementary Teachers’ Federation of Ontario annual general meeting held in August.

In a recent [statement](#), the Board provided its full correspondence with Ministry of Education and the Ministry of Health and Long Term Care, both of which “affirmed the Simcoe County District School Board’s use of wireless technologies and confirmed the safety of these technologies for use in classrooms.”



## In Brief

### WA Gov't commits \$120m for mobile telephone networks

West Australian Premier Colin Barnett has unveiled a [\\$120million plan](#) to deliver improved mobile telephone and emergency service coverage to regional Western Australia.

Mr Barnett said the building of communication towers and upgrading of services in strategic areas of the State would dramatically improve mobile phone coverage as well as emergency services for WA.

“Anyone living or travelling in regional Western Australia understands the frustration of trying to use a mobile phone in dead spots,” the Premier said.

Regional Development Minister Brendon Grylls said the [project](#) was announced in the 2010-11 State Budget and tenders would now be sought



West Australian Premier Colin Barnett announced a [\\$120million plan](#) to deliver improved mobile phone coverage at a media conference in September.

for both projects so they could start as soon as possible.

“Priority areas under consideration include the Pilbara, Mid-West, Gascoyne, Kimberley and Wheatbelt regions and benefits will also extend to the Goldfields-Esperance, Great Southern, Peel and South-West regions,” Mr Grylls said.

“\$40million will go towards eliminating phone black spots, while the remaining \$80million will be spent on improving communications for police and emergency services.”

### Victorian Premier promises action on communications blackspots

Victorian Premier John Brumby vowed to take action on communication blackspots in North East Victoria following a visit to the fire-affected region in August.

Local newspaper *The Border Mail* reported the Premier was in the town of Stanley to discuss recommendations made by the Bushfires Royal Commission.

Following a closed meeting with residents, Mr Brumby said the greatest concern was communications and having a mobile phone

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## In brief

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tower on top of Mount Stanley to provide mobile phone coverage to the region.

“Communications obviously is a federal government issue, but I personally think this is a big issue going forward,” Mr Brumby said. “We need to fix this problem. The Commission didn’t actually make any recommendations in relation to telecommunications or blackspots, but I actually think it’s something that’s come up in the consultations and it’s something we’ll be focused on in our response.”

### New brochure on wireless antenna siting in Canada

The Canadian Wireless Telecommunications Association (CWTA) published a new brochure in August to provide an easy to understand overview of how and why mobile phone base stations are installed.

The [brochure](#) provides basic information about

the rigorous procedures used to select a site, the regulations of the approval process, and an explanation of how a tower is built. It also answers some key questions about health and safety issues.

“Wireless networks rely on base station antennas to operate. As communities demand new or improved wireless service, local carriers respond to this need by installing new network equipment,” the [brochure](#) states.

“Sites are only selected after thorough analysis of expected coverage outcomes based on field measurements and predictions combined with customer requirements.”

The brochure says measurements of RF fields around mobile phone base stations show the maximum level of exposure measured for any of the locations was 3000 times lower than the limits specified in Health Canada’s safety code.

