Explanatory paper

NOVEMBER 2012
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Background


The ACMA refers to the General Approach to Analog Planning when it considers the planning of broadcasting services. This document sets out the legislative framework and planning criteria as well as the general approach to the planning of broadcasting services. It also contains a record of advice and assumptions about matters relevant to the ACMA’s broadcast planning functions and powers.

The ACMA prepares licence area plans (LAPs) under subsection 26(1) of the Broadcasting Services Act 1992 (BSA). LAPs determine the number and characteristics, including technical specifications, of broadcasting services in particular areas of Australia with the use of the broadcasting services bands.

The ACMA may vary LAPs under subsection 26(2) of the BSA and generally considers variations in response to submissions received or on becoming aware of technical issues that need addressing.

The ACMA has received three submissions that it should vary the Broken Hill Radio, Ipswich Radio and Wagga Wagga Radio LAPs to:

1/ change the site and power level of the commercial radio service 2HIL Broken Hill;
2/ change the site and modify the licence area of the community radio service 4RIM Boonah; and
3/ find an FM frequency for the community radio service 2TVR Tumut to establish a transmitter at Adelong and extend its licence area to cover that transmitter.

Further discussion of these submissions and other matters known to the ACMA is set out in the preliminary views on Broken Hill Radio, Ipswich Radio and Wagga Wagga Radio, below.
Preliminary views - Broken Hill radio

The ACMA proposes:

- that the existing channel capacity made available for national and commercial television broadcasting services and the open narrowcasting television service be removed from the Broken Hill LAP and that the title of the Broken Hill LAP be changed to Licence Area Plan – Broken Hill Radio;

- to make channel capacity available for the existing national radio broadcasting service at Broken Hill. It is proposed that this service operates on 104.5 MHz from Broadcasting site Rocky Hill, Broken Hill with a maximum effective radiated power (ERP) of 4 kilowatt (kW) with an omni-directional (OD) radiation pattern and mixed polarisation;

- to vary the technical specifications of the existing commercial radio broadcasting service 2HIL at Broken Hill. It is proposed this service operates on 96.5 MHz from Broadcast Site 3 km NW of Broken Hill with an ERP of 4 kW with an OD radiation pattern and mixed polarisation;

- to vary the technical specifications of the existing open narrowcasting radio service on FM frequency 105.3 MHz at Broken Hill. It is proposed this service operates on 94.9 MHz from Rocky Hill with an ERP of 4 kW with an OD radiation pattern and mixed polarisation; and

- that the existing commercial and community radio broadcasting licence areas in Broken Hill LAP be redefined using 2006 census data but otherwise remain unchanged.

Television

Until recently, LAPs prepared under Part 3 of the BSA were the only broadcast planning power that could be used for analog television services. In 2011, the BSA was amended by the Broadcasting Legislation Amendment (Digital Dividend and Other Measures) Act 2011, which introduced new provisions on the ACMA’s planning powers for television broadcasting services. The changes were introduced ‘...to enable the ACMA to undertake efficient planning and restack of the radiofrequency spectrum used to deliver television services needed to achieve the digital dividend.'

The BSA now empowers the ACMA to make Television Licence Area Plans (TLAPs) under Part 3. TLAPs reflect the requirements of subsection 26(1B) of the BSA and will be the long term planning instrument for television broadcasting services. When a TLAP comes into effect, it replaces the existing LAP for that area and the LAP ceases to have effect. If the existing LAP relates partly to television broadcasting services and partly to other broadcasting services; the existing LAP ceases to have effect to the extent to which relates to television broadcasting services (paragraph 26(1H)(c) of the BSA).

The Television Licence Area Plan (Broken Hill) 2011 came into force on 2 April 2012 and therefore on that date the provisions planning television broadcasting services in the Broken Hill LAP ceased to have effect. It is proposed to now remove those analog specifications from the Broken Hill LAP and that the title of the Broken Hill LAP is changed to Licence Area Plan – Broken Hill Radio to avoid any confusion.

Broken Hill analog television services ceased operation on 15 December 2010.
Radio

National radio
The Government has committed to the roll-out of the Parliamentary News Network/NewsRadio (PNN) service to areas in Australia with a population of 10,000 or more people, subject to the availability of spectrum in those areas. The ACMA was asked to identify available spectrum for a new PNN radio service in the Broken Hill region.

The ACMA found that the frequency 104.5 MHz is available and if operated at 4 kW would allow the PNN service to reach more than 10,000 people, in accordance with the Government’s policy.

In September 2007, the ACMA agreed that the frequency 104.5 MHz would be made temporarily available to the ABC for the provision of its PNN service until the Broken Hill LAP could be varied. This approach was adopted to expedite the commencement of the service. The ABC commenced its service on 17 February 2008.

It is proposed to update the Broken Hill to make 104.5 MHz available to the ABC for the long term.

The new national radio broadcasting specification is detailed at Attachment 2.10 of the Draft Variation to Licence Area Plan – Broken Hill Radio – No.1 of 2012.

Commercial radio
The Broken Hill LAP currently provides for the commercial radio service, 2HIL to operate from Garnet St, Broken Hill on 106.9 MHz with a maximum ERP of 200 W and for the community radio service 2DRY to operate on 107.7 MHz from South Mine Headframe, Broken Hill with a maximum ERP of 500 W.

A special condition in the LAP on both these services allows for an increase in their power to a maximum of 4 kW, if their transmission sites are co-located at Rocky Hill. This condition, however, cannot be met by either broadcaster without the full co-operation of the other.

2HIL has indicated it is keen to increase its power to 4 kW but has not been able to gain access to the alternate LAP site. 2HIL has proposed that as the co-location is not possible, it be allowed to nominate an alternate site for operation and that an alternate frequency be found that will allow it to increase its power to 4 kW.

In considering 2HIL’s request, the ACMA has investigated whether there are any technical restraints relating to the delivery of broadcasting services in the Broken Hill area that would prevent such a frequency change and power increase being approved.

The ACMA’s investigations have confirmed that 2DRY is not in a position now or in the near future to change its transmission site and increase its power. In addition, while 2HIL’s proposed alternate transmission site is suitable for ongoing operation, due the closeness of the 2HIL/2DRY frequencies operating at different sites there is potential for interference to occur between them. This interference could be avoided if 2HIL operated on alternate different frequency.

The ACMA has found that the frequency 96.5 MHz is available and suitable for use. To determine whether any interference would occur, 2HIL was authorised to conduct a test three month transmission at a maximum power level of 4 kW in 2009. These tests
revealed some minor interference\(^1\) to the reception of the digital BKN/SCN commercial
television broadcasting services\(^2\) and SBS national television broadcasting service
within central Broken Hill. 2HIL in consultation with the affected viewers resolved the
reported interference through the installation of filters to the domestic receivers.

2HIL was authorised to conduct further testing for a further twelve months to determine
if any residual interference was occurring. No further interference has been reported
and 2HIL has been allowed to continue under test conditions until the Broken Hill LAP
could be varied.

For that reason, the ACMA proposes that the Broken Hill LAP now be varied to allow
2HIL to operate on 96.5 MHz with a maximum power of 4 kilowatts.

The updated 2HIL specification is detailed at Attachment 2.7 of the *Draft Variation to
Licence Area Plan – Broken Hill Radio – No.1 of 2012*.

**Open narrowcasting radio**
The Broken Hill LAP currently provides for an open narrowcasting radio service to
operate from Rocky Hill on 105.3 MHz with a maximum ERP of 4 kW. This service was
allocated via auction in December 1997. Broken Hill Church of Christ (BHCC) was the
successful bidder and was issued a transmitter licence in March 1997.

Upon commencing the service BHCC reported that its reception was of poor quality
and that it additionally suffered from severe interference. At the time because of the
distances involved this report of interference was not investigated further, but rather it
was decided that that the most cost-effective solution was to find an alternative
frequency and confirm its operation with testing prior to permanent allocation.

That alternative frequency (94.9 MHz) was identified and BHCC successfully
conducted a test transmission and found that there were no interference issues.

As a result, in June 1999, the alternative frequency of 94.9 MHz was identified as able
to be allocated to BHCC for the purpose of providing an open narrowcasting service to
the Broken Hill area, and that the previous frequency (105.3 MHz) need not be used
for open narrowcasting services.

The ACMA therefore proposes to update the Broken Hill to reflect the above view.

The updated open narrowcasting radio specification is detailed at Attachment 2.9 of
the *Draft Variation to Licence Area Plan – Broken Hill Radio – No.1 of 2012*.

**Licence areas**
The licence areas for commercial and community radio services in the Broken Hill LAP
are currently described using boundaries from the 1991 census. The ACMA proposes
that these licence areas be redefined using 2006 census data, but otherwise remain
unchanged.

The updated licence areas, updated to 2006 census data, are detailed at Attachments
2.1 and 3.1 of the *Draft Variation to Licence Area Plan – Broken Hill Radio – No.1 of
2012* and are illustrated in the document "Licence Area Maps" that accompanies this
explanatory paper.

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\(^1\) Four complaints of interference, two of frozen pictures, one of picture distortion and one of no reception of
BKN/SCN and SBS television services.

\(^2\) Multi-channelled in digital mode.
The ACMA proposes:

- to vary the technical specifications of the existing community radio broadcasting service 4RIM at Boonah, Queensland. It is proposed that this service now operates on 100.1 MHz from Telstra Site 2 Footes Hill Boonah with a maximum ERP of 1 kW OD with mixed polarisation and a maximum antenna height of 30 m;

- that the boundaries of the Boonah RA1 licence area be amended to reflect the coverage achieved by the 4RIM service if operated optimally from Footes Hill and to define the new boundaries of the licence area using 2006 census data; and

- that the remaining commercial and community radio broadcasting licence areas in Ipswich LAP be redefined using 2006 census data but otherwise remain unchanged.

Boonah

The Ipswich LAP currently provides that the Boonah community radio broadcasting service 4RIM operates on 100.1 MHz from Telstra Site at Foxs Hill, Green Hills Road, Boonah with a maximum ERP of 1 kW OD with mixed polarisation and a maximum antenna height of 30 m.

The ACMA understands, on 4RIM’s advice, that it has never provided a service from Fox’s Hill but rather has always provided a service according to the conditions of its earlier temporary community broadcasting licence, which authorised operation from Footes Hill, Boonah, approximately 9 kilometres north west of Foxs Hill.

On 21 July 2011 4RIM proposed that it be allowed to increase its existing power level (from 1 kW to 2 kW) to provide greater coverage of its licence area and to formalise its current transmission site (Footes Hill) as the LAP nominated transmission site.

An engineering assessment of this request has found that, due to local topography, operation above 1 kW would not be spectrum efficient as it would not increase the quality of coverage inside the 4RIM’s licence area but would conversely result in excessive overspill outside it.

In considering the change of site it has been found that changing the LAP nominated transmission site to “Footes Hill” is minor but that 4RIM’s licence should be modified to reflect the marginally differing coverage achieved from the Footes Hill site versus the Fox’s Hill site.

After considering the above, the ACMA considers there insufficient evidence to allow an increase in the power level of the 4RIM service above the existing 1 kW but that there is merit in updating the LAP transmission site to reflect current operation of the 4RIM service.

The ACMA therefore proposes that the Ipswich LAP be varied to make available the FM frequency 100.1 MHz from Telstra Site 2 Footes Hill BOONAH with a maximum ERP of 1 kW OD with mixed polarisation and a maximum antenna height of 30 m for the 4RIM service at Boonah.
The ACMA also proposes to amend the boundaries of the Boonah RA1 licence area to reflect the coverage achieved by the 4RIM service is operated optimally from Footes Hill using 2006 census data.

The varied licence area, using 2006 census data, is detailed at Attachment 3.1 of the Draft Variation to Licence Area Plan – Ipswich Radio – No.1 of 2012 and is illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.

Licence areas
The remaining licence areas (Ipswich RA1 and Esk RA1) for commercial and community radio services in the Ipswich LAP are currently described using boundaries from the 1996 census. The ACMA proposes that these licence areas be redefined using 2006 census data, but otherwise remain unchanged.

The updated licence areas, updated to 2006 census data, are detailed at Attachments 1.1 and 2.1 of the Draft Variation to Licence Area Plan – Ipswich Radio – No.1 of 2012 and are illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.
Preliminary view - Wagga Wagga Radio

The ACMA proposes

- to make channel capacity available for an additional transmitter at Adelong for Tumut community radio service 2TVR. The additional transmitter is proposed to operate on 94.1 MHz from Broadcast Site 3 km ENE of Adelong with a maximum ERP of 20 W OD with mixed polarisation and a maximum antenna height of 10 m;
- to extend the Tumut RA1 licence area to include the coverage area of the additional transmitter at Adelong and to define the new boundaries of the licence area using 2006 census data;
- that the remaining commercial and community radio broadcasting licence areas in Wagga Wagga LAP be redefined using 2006 census data but otherwise remain unchanged; and
- that the Frequency allotment plan for the VHF-FM Band entries under R10 – Murrumbidgee/Riverina be varied to reflect the addition of the new 2TVR transmitter at Adelong.

Adelong

In January 2008, Tumut community radio broadcasting service 2TVR proposed that it be allowed to extend its service to include the community of Adelong. Adelong, with a population of 829 people\(^3\), is not contained in any community radio licence area.

In July 2009, 2TVR was advised that the frequency 94.1 MHz, if operated at 20 W, was available and would provide adequate coverage to Adelong. However, as Adelong was not contained in 2TVR’s licence area, a variation to the Wagga Wagga LAP would be required before 2TVR could commence a service there.

In March 2011 Adelong Progress Association Inc applied under section 212 of the Broadcasting Services Act 1992 for permission to retransmit the 2TVR service to Adelong using the frequency 94.1 MHz with a maximum power of 20 watts. In September 2011, permission was granted to Adelong Progress Association Inc.

Adelong Progress Association Inc has advised it is prepared to cease retransmitting 2TVR’s service should the ACMA include Adelong in 2TVR’s licence area. 2TVR is supportive of the proposal and is prepared to maintain and operate the service, as well as include the people of Adelong in the running of its service. Adelong Progress Association Inc has also advised it is not interested in providing a long-term community radio broadcasting service, independently of 2TVR.

In considering this proposal it has been found that Adelong is not currently contained in any community radio licence area and there is currently no evidence of any other aspirant broadcasters or groups in the Adelong area who, by operating a community radio broadcasting service, would provide a more localised community radio service than the one proposed by 2TVR.

\(^3\) 2006 census data.
The ACMA has also found that the unplanned occupied frequency of 94.3 MHz operated at 20 watts is available for use, potentially free from interference and would not limit spectrum planning options in the area in the future.

The ACMA therefore proposes that the Wagga Wagga LAP be varied to make available the FM frequency 94.1 MHz from Broadcast Site 3 km ENE of ADELONG with a maximum ERP of 20 W OD with mixed polarisation and a maximum antenna height of 10 m for the 2TVR service at Adelong.

The ACMA also proposes to amend the boundaries of the Tumut RA1 licence area to reflect the coverage achieved by the 2TVR Adelong service using 2006 census data.

The varied licence area, using 2006 census data, is detailed at Attachment 3.1 of the Draft Variation to Licence Area Plan – Wagga Wagga Radio – No.1 of 2012 and is illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.

Licence areas
The remaining licence areas (Wagga Wagga R1, RA2 and RA3) for commercial and community radio services in the Wagga Wagga LAP are currently described using boundaries from the 2001 census. The ACMA proposes that these licence areas be redefined using 2006 census data, but otherwise remain unchanged.

The updated licence areas, updated to 2006 census data, are detailed at Attachments 1.1 and 2.1 of the Draft Variation to Licence Area Plan – Wagga Wagga Radio – No.1 of 2012 and are illustrated in the document “Licence Area Maps” that accompanies this explanatory paper.

Frequency allotment plan
The frequency allotment plan (FAP) and LAP for a particular area together constitute a ‘blueprint’ for the development and planning of broadcasting in that area using the broadcasting spectrum. The FAP sets out the number of channels and the LAP describes the characteristics of the services using, or that are proposed to use, those channels. Under subsection 26(1) of the BSA these two documents must be consistent.

As a consequence of the proposal to make available a new transmitter available for 2TVR at Adelong we propose to vary the FAP for the VHF-FM Band, entries under R10 – Murrumbidgee/Riverina to reflect the addition of that new service. This will ensure that the Wagga Wagga LAP and the FAP remain consistent.
Submissions

Submissions, quoting file reference ACMA2012/1020, are invited in writing by 5 pm, 14 December 2012.

The preferred method for the receipt of submissions is by email to: rps@acma.gov.au, otherwise submissions can be posted to:

Draft variation to Broken Hill, Ipswich and Wagga Wagga LAPs – No.1 of 2012
Radio Planning Section
Australian Communications and Media Authority
PO Box 78
Belconnen ACT 2616

Any enquiries concerning matters raised in this document should be directed to Christopher Roberts on (02) 6219 5157.

Publication of submissions
All submissions received will be made available for public inspection on the ACMA’s web site at http://www.acma.gov.au.

Under subsection 27(2) of the Broadcasting Services Act 1992 (BSA), the ACMA is required to make all submissions available for public inspection. Any submission marked ‘In confidence’, ‘Confidential’ or similar, will not be considered by the ACMA in finalising this LAP variation.

Effective consultation
The ACMA is working to enhance the effectiveness of its stakeholder consultation processes, which are an important source of evidence for its regulatory development activities. To assist stakeholders in formulating submissions to its formal written consultation processes, it has developed Effective consultation: A guide to making a submission. This guide provides information about the ACMA’s formal written public consultation processes and practical guidance on how to make a submission.