Explanatory Paper
Draft Variation to Licence Area Plan for Bunbury Radio – No.1 of 2010

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Submissions

Submissions to this proposal may be made to the Australian Communications and Media Authority (ACMA) as follows:

By email:  lais@acma.gov.au
By mail:  Draft Variation to Bunbury LAP
         Radio Planning Section
         Technical Planning and Evaluation Branch
         Australian Communications and Media Authority
         PO Box 78
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Please quote file reference: ACMA2009/751 (Bunbury LAP) in your reply.

Contact details for submissions:

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The closing date for submissions is 5.00 pm Friday 13 August 2010.

All submissions received will be made available for public inspection on the ACMA’s web site.¹ (www.acma.gov.au)

¹ Note that any submissions marked “In confidence”, “Confidential” or similar, will not be considered by the ACMA in finalising the LAP variation. Under subsection 27(2) of the Broadcasting Services Act 1992, the ACMA is required to make all submissions available for public inspection.
Explanatory Paper

This explanatory paper accompanies the proposed draft variation to the Licence Area Plan (LAP) for Bunbury Radio (Bunbury LAP).

Legislative Background

The ACMA prepares 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.

Section 23 of the BSA imposes specific obligations on the ACMA when carrying out its planning functions, including, amongst other things, a requirement to perform its functions in a way that promotes the objects of the BSA, including the economic and efficient use of the radiofrequency spectrum.

The object of most obvious relevance to the ACMA's powers in relation to section 26 of the BSA is that at paragraph (a) of subsection 3(1), that being:

*to promote the availability to audiences throughout Australia of a diverse range of radio and television services offering entertainment, education and information.*

Section 27 of the BSA provides that the ACMA must make provision for wide public consultation when considering whether to make or vary a LAP.

The ACMA's General Approach to Analog Planning further sets out the legislative framework and planning criteria as well as the ACMA's general approach to the planning of broadcasting services. It also contains a record of advice and assumptions. This document can be obtained from the ACMA's web site at: http://www.acma.gov.au/WEB/STANDARD/pc=PC_90248

Preliminary Views

In the context of the information contained in the ACMA's General Approach to Analog Planning the ACMA has reached the following preliminary views for national, commercial, community radio broadcasting services and open narrowcasting radio services in the Bunbury LAP:

- channel capacity should be made available for a new national radio broadcasting radio service at Busselton, provided by the Australian Broadcasting Corporation (ABC);
- power should be increased for the existing national radio broadcasting service 6RN at Busselton;
- channel capacity should be made available for the commercial radio broadcasting service 6TZ for an in-fill transmitter at Augusta;
- channel capacity should be made available for the commercial radio broadcasting service 6BUN for infill transmitters at Collie and Margaret River;
- the category of service for an existing community radio broadcasting service should be altered to an open narrowcasting service in Bunbury in preparation for price-based allocation; and
- channel capacity should be made available for two new community radio broadcasting services at Augusta and Harvey.

The draft variation also proposes to make minor amendments to improve and simplify drafting, and to remove obsolete information. It further proposes updates to the licence area definitions in the LAP so that the licence areas are defined in accordance with the 2006 Australian Bureau of Statistics (ABS) census data.

A full discussion on these matters is set out in the ACMA's preliminary views below.
Preliminary View 1 - National Radio

The ACMA proposes to make channel capacity available for a new national radio broadcasting service to be provided by the ABC at Busselton. The service to be provided is the Parliamentary News Network/NewsRadio (PNN) radio service. It is proposed that this service will operate on:

- AM frequency 1152 kHz at broadcast site, BUSSELTON with a maximum transmitter power of 10 kilowatts (cymomotive force (CMF) 1.415 kV) with a directional radiation pattern.

The ACMA proposes to vary the technical specifications of the existing national radio broadcasting service 6RN provided by the ABC at Busselton to change the frequency. It is proposed that this service operate on:

- AM frequency 1269 kHz at broadcast site, BUSSELTON with a maximum transmitter power of 5 kW (CMF 885 V) with an omni-directional radiation pattern.

The ACMA also proposes to vary the technical specifications of the existing national radio broadcasting service 6BS provided by the ABC at Busselton to increase the maximum operating power. It is proposed that this service will operate on:

- AM frequency 684 kHz at broadcast site, BUSSELTON with a maximum transmitter power of 5 kW (CMF 885 V) with an omni-directional radiation pattern.

Background
In performing its function under section 26 of the BSA, the ACMA is required to promote the objects of the BSA, including the economic and efficient use of spectrum.

The ACMA promotes the object at paragraph 3(1)(a) of the BSA² by making available a mix of different types of broadcasting services in an area. The Bunbury LAP, determined on 12 November 1996, makes available six national, three commercial and three community broadcasting services, and two open narrowcasting services.

Proposed new PNN service at Busselton

In accordance with a commitment by the previous government, endorsed by the current government, the ACMA has undertaken spectrum planning and consultation activities to facilitate the roll-out of the ABC’s PNN national radio broadcasting service to areas in Australia with a population of 10,000 or more, if the ACMA can confirm availability of spectrum.

The ABC asked the ACMA, when planning for PNN radio services, to identify FM frequencies that will provide the same level of coverage as existing ABC national radio broadcasting services in an area, or where there are no existing ABC national radio broadcasting services, a high power frequency.

The ACMA has considered whether channel capacity exists for the provision of an additional high powered national radio broadcasting service to serve the Bunbury region. In performing its functions under Part 3 of the BSA, the ACMA is required to have regard to existing broadcasting services, to demand for new broadcasting services within a licence area and to technical restraints relating to the delivery and reception of broadcasting services in Bunbury (paragraphs 23(c) and (e) of the BSA).

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² To promote the availability to audiences throughout Australia of a diverse range of radio and television services offering entertainment, education and information.
The ACMA found that FM spectrum in the Bunbury region is heavily congested and there are no suitable unencumbered FM frequencies available that would meet the ABC’s request to provide the same level of coverage as provided by the existing ABC radio broadcasting services in the Bunbury region.

Following an engineering assessment conducted by the ACMA to identify suitable spectrum, the ACMA proposes to make available AM frequency 1152 kHz for the proposed new PNN service at Busselton. The use of this frequency with a maximum transmitter power of 10 kW is predicted to provide coverage to more than 10,000 people in the Bunbury region.

**Change of frequency for 6RN at Busselton**

The ABC also requested that the existing national broadcasting service at Busselton (6RN) change its frequency from 1224 kHz to 1269 kHz to increase the separation between the proposed new PNN service and the existing 6RN service. The ABC’s request for a greater channel separation between these services is to simplify the implementation of the proposed new PNN radio service.

An engineering assessment conducted by the ACMA of the proposal indicates that there are no interference issues associated with the change of frequency.

**Power Increase for 6BS at Busselton**

The ABC also requested an increase to the transmitter power of its 6BS service at Busselton from 4 kW to 5 kW. An engineering assessment conducted by the ACMA indicates that an increase in power for the 6BS service is unlikely to cause adjacent channel interference and would provide better coverage to Busselton. It also would allow the service to operate at the same power level as other national radio broadcasting services in the Bunbury region.

**Conclusion**

The ACMA is of the preliminary view that making AM spectrum available on 1152 kHz for a new national radio broadcasting service (PNN) and varying the technical specifications of the existing national radio broadcasting service (6BS) to increase the power, is an economic and efficient use of the radiofrequency spectrum, as it maximises spectrum productivity in the Bunbury region.

The use of AM frequency for PNN will enable the ACMA to make a high power national radio broadcasting service available in the Bunbury region, where FM spectrum is limited, and it is likely to promote the availability to audiences throughout the Bunbury region of a diverse range of broadcasting services in accordance with the object at paragraph 3(1)(a) of the BSA.

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3 ABC local radio, ABC Classic FM, Radio National and Triple J
Preliminary View 2 – Commercial Radio

The ACMA proposes to make channel capacity available for FM translators for commercial radio broadcasting service 6BUN. It is proposed that the transmitters operate on:

- FM frequency 96.7 MHz from broadcast site 4km ESE of COLLIE, with a maximum ERP of 80 W with an omni-directional radiation pattern; and
- FM frequency 100.3 MHz from SES lot 25 to 26 Le Souef Street MARGARET RIVER, with a maximum ERP of 25 W with an omni-directional radiation pattern.

The ACMA also proposes to make channel capacity available for an FM translator at Augusta for commercial radio broadcasting service 6TZ. It is proposed that the transmitter will operate on:

- FM frequency 101.5 MHz from broadcast site Leeuwin Road/Osnaburg Street Junction AUGUSTA, with a maximum ERP of 80 W with an omni-directional radiation pattern.

The ACMA also proposes to redefine the Bunbury RA1 licence area using 2006 census boundaries.

Background

Radio West Broadcasters Pty Ltd (Radio West), the licensee of the commercial radio broadcasting services 6TZ and 6BUN at Bunbury, has requested that spectrum be made available for local coverage translator services at Augusta, Collie and Margaret River.

6BUN at Collie

Radio West requested that an infill translator be made available to address poor coverage of its 6BUN service in Collie. 6BUN currently transmits on 95.7 MHz with a maximum ERP of 40 kW using a directional antenna pattern. Radio West claims that the deficient coverage of its service at Collie is due to the restricted power of its antenna in that direction.

Analysis conducted by the ACMA has confirmed that the predicted coverage from the Bunbury transmitter is not adequate to serve Collie. An engineering assessment was then conducted by the ACMA to identify suitable spectrum to facilitate Radio West's request. It is proposed that the 6BUN Collie service operate on 96.7 MHz with a maximum ERP of 80 W.

The ACMA also identified that this frequency has potential, albeit low, to cause interference to the reception of the national television broadcasting service ABSW operating on channel 5 at Bunbury. In accordance with the 'start up procedure' in the Broadcasting Services (Technical Planning) Guidelines 2007, the licensee is responsible for rectifying any interference that occurs.

6BUN at Margaret River

Radio West also requested an additional infill translator to rectify deficient coverage of its 6BUN service at Margaret River. On 3 June 2004, 6BUN was issued a transmitter licence for the retransmission of its programs which allows 6BUN to operate its Margaret River service in the short-term. The transmitter licence is authorised under paragraph 34(1)(e) of the BSA. The analysis conducted by the ACMA confirms that there would be inadequate signal at Margaret River to provide coverage to the township.
Therefore, the ACMA proposes that a 6BUN Margaret River service operate on 100.3 MHz with a maximum ERP of 25 W.

**6TZ at Augusta**

Radio West also claims that the coverage of its AM commercial radio broadcasting service at Bunbury is deficient at Augusta.

The ACMA’s preferred option for addressing the coverage deficiency is to modify the technical specification of the main AM transmitter. This may involve an increase in the transmitter power, a change to the radiation pattern or the introduction of day/night switching. However, where a change to the main transmitter specification is not feasible, either due to the cost, site restrictions, hardware limitations or other reasons, an FM solution can be considered.

In this instance, due to the high cost associated with changing the technical specifications of 6TZ’s AM transmitter, the ACMA is of the view that planning for an FM translator service covering only the deficient area at Augusta is the most economical option.

Therefore, the ACMA proposes to make available FM frequency 101.5 MHz with a maximum ERP of 80W with an omni-directional radiation pattern at Augusta.

**Licence areas**

The licence areas for the Bunbury RA1 licence area are currently described using boundaries from the 1991 census.

The ABS has made available to the ACMA the most recently published census (2006), as prepared by the Australian Statistician.

Therefore, the ACMA proposes that the Bunbury RA1 licence area be redefined using 2006 census boundaries, but otherwise remain unchanged.

**Conclusion**

The ACMA is of the preliminary view that making available the proposed FM spectrum for infill services should address the coverage deficiencies of the commercial radio broadcasting services 6TZ and 6BUN and provide listeners in the affected areas with the opportunity to receive the number of services they are entitled to receive.
The ACMA proposes to alter the category of service of a planned community radio broadcasting service to an open narrowcasting service. It is proposed that this service will operate on:

- AM frequency 855 kHz at broadcast site, BUNBURY with a maximum transmitter power of 500 W (CMF 220 V) with an omni-directional radiation pattern.

The ACMA also proposes to make channel capacity available for a new open narrowcasting service to be provided at Collie. It is proposed that this service will operate on:

- AM frequency 1593 kHz at broadcast site 4km ESE of COLLIE with a maximum transmitter power of 500 W (CMF 220 V) with an omni-directional radiation pattern.

Background
The Bunbury LAP, determined in November 1996 made available channel capacity for two open narrowcasting services.

The ACMA received a request from Racing and Wagering Western Australia (RWWA) in 2007 for additional MF-AM band HPON services to be made available at Bunbury and Collie.

Discussion
Channel Capacity
The ACMA has considered whether channel capacity exists for the provision of two additional open narrowcasting services to serve the Bunbury region. In performing its functions under Part 3 of the BSA, the ACMA is required to have regard to existing broadcasting services, to demand for new broadcasting services within a licence area and to technical restraints relating to the delivery and reception of broadcasting services in Bunbury (paragraphs 23(c) and (e)).

An engineering assessment conducted by the ACMA has identified that AM frequency 1593 kHz is available in Collie, with a maximum transmitter power of 500 W.

RPS also identified AM frequency 855 kHz at Bunbury. 855 kHz was planned as a community radio broadcasting service, but has been unallocated in the Bunbury LAP since November 1996. Rather than allow the frequency to remain unused, the ACMA is considering whether to alter the category of service from a community radio broadcasting service to an open narrowcasting service.

Developments in Technology
In performing its functions under Part 3 of the BSA, the ACMA is required to have regard to developments in technology (paragraph 23(d)).

In 2005, the ACMA announced that it may restrict access to AM spectrum for possible future use by Digital Radio Mondiale (DRM) digital radio technology in regional Australia.

The use of 1593 kHz for the proposed HPON service at Collie would have little impact on the future availability for a DRM service in WA. This is because this frequency is already power restricted to avoid adjacent channel interference to services operating on adjacent channel 1584 kHz in Indonesia⁴. For this reason, the ACMA believes that it would be highly unlikely that 1593 kHz would be considered for a high power DRM service in WA.

⁴ ABC local radio, ABC Classic FM, Radio National and Triple J
The ACMA also assessed the suitability of 855 kHz for future DRM purposes and can confirm that this frequency would be unavailable for high power DRM services in a number of the regional areas of Australia. In particular, for DRM in WA, the interference study conducted by the ACMA indicates that there would be potential adjacent channel interference to a national radio broadcasting service at Carnarvon and a commercial radio broadcasting service at Northam. The existence of other adjacent and co-channel radio services in Eidsvold, Pialba, Melbourne, Canberra, Hobart and Toowoomba limits the use of 855 kHz for DRM services in regional Australia.

**Conclusion**

Due to spectrum congestion in the Bunbury region, the ACMA is of the preliminary view that making AM spectrum available on 1593 kHz for a new HPON service at Collie and changing the category of service of an existing planned community radio broadcasting service on 855 kHz to an open narrowcasting service in Bunbury, are economic and efficient uses of the radiofrequency spectrum, as they maximise spectrum productivity in the Bunbury licence area.

The ACMA is also of the preliminary view that making channel capacity available for open narrowcasting services in the Bunbury LAP as proposed is likely to further promote the objects of the BSA, in particular the availability of a diverse range of radio services (paragraph 3(1)(a) of the BSA).
Preliminary View 4 - Community Radio – Augusta and Harvey

The ACMA proposes to make channel capacity available for a community radio broadcasting service under service licence number SL1130120 to serve the Harvey area. It is proposed that the new service operate on:

- 96.5 MHz from FM Site Honeymoon Road, HARVEY with a maximum ERP of 400 W with a directional radiation pattern.

The ACMA also proposes to make channel capacity available for a community radio broadcasting service under service licence number SL1130119 to serve the Augusta area. It is proposed that the new service operate on:

- 97.1 MHz from Augusta Telecentre Building 66 Allnutt Terrace, AUGUSTA with a maximum ERP of 200 W with an omni-directional radiation pattern.

The ACMA proposes to define the Harvey RA1 and Augusta RA1 licence areas using 2006 census data.

The ACMA also proposes to redefine the Collie RA1 and Margaret River RA1 licence areas using 2006 census boundaries, but otherwise leave them unchanged.

Background

In forming this preliminary view, the ACMA has considered the likely effects of the introduction of these services, having regard to the local circumstances in the Bunbury area, and other relevant matters under paragraphs 23 (a) to (g) of the BSA.

In performing its functions under Part 3 of the BSA, the ACMA is required to have regard to existing broadcasting services, to demand for new broadcasting services within a licence area and to any technical restraints relating to the delivery and reception of broadcasting services.

Discussion

Demand for new community radio broadcasting services

Harvey Mainstreet Inc. (HMI) has been providing a temporary community radio broadcasting service under a temporary community broadcasting licence (TCBL) at Harvey on 96.5 MHz since May 2007. HMI has articulated its intention to acquire a long-term community radio broadcasting licence at Harvey if it becomes available in the Bunbury LAP. Harvey is currently not served by any long-term community radio broadcasting service.

Augusta Telecentre Inc (ATI) has been providing a temporary community radio broadcasting service under a TCBL at Augusta on 97.1 MHz since February 2009. ATI has made it known to the ACMA that it would pursue a long-term community radio broadcasting licence should it be made available in the Bunbury LAP. Augusta is located within the community radio broadcasting licence area of Margaret River RA1.

Although temporary community broadcasting licences held by aspirant community broadcasters do not confer any long-term rights nor indicate any preference by the ACMA for a group to be granted a long-term community radio broadcasting licence, the ACMA is of the view that if a long-term community radio broadcasting licence were to be made available for allocation, it is likely that it would be taken up.

Channel Capacity

The ACMA is required to have regard to technical restraints relating to the delivery or reception of broadcasting services (paragraph 23 (e) of the BSA).
A broadcasting engineering assessment of the frequency 96.5 MHz at Harvey indicates that the maximum ERP that the frequency can be operated at is 400 W. It is expected that 400 W will provide signal of sufficient quality to provide coverage to the Harvey area. It is not expected that this service would create any adjacent channel interference to other services operating in the Harvey area.

The ACMA has also identified that the frequency 97.1 MHz is available and suitable for a long-term community radio broadcasting service and that its use will not limit the ACMA’s planning options in the future.

Licence Areas

The existing Collie RA1 and Margaret River RA1 licence areas are currently described using boundaries from the 1991 census.

The ABS has made available to the ACMA the most recently published census (2006), as prepared by the Australian Statistician.

Therefore, the ACMA proposes that these licence areas be redefined using 2006 census boundaries, but otherwise remain unchanged.

The proposed new Augusta RA1 and Harvey RA1 licences will be defined using 2006 census data.

Conclusion

The ACMA is of the preliminary view that making channel capacity available for community radio broadcasting services at Augusta and Harvey as proposed is likely to further promote the objects of the BSA, in particular the availability of a diverse range of radio services (paragraph 3(1)(a) of the BSA). The introduction of the community radio broadcasting services at Augusta and Harvey is also likely to promote matters of local significance to these communities ((paragraph 3(1)(g)).