

**City Administrative Centre**

Bridge Road, Nowra NSW Australia 2541

Phone: (02) 4429 3111 • Fax: (02) 4422 1816 • DX 5323 Nowra

Address all correspondence to

The General Manager, PO Box 42, Nowra NSW Australia 2541

COUNCIL REFERENCE: 15360 JR:mg ,D07/110054

CONTACT PERSON: John Rushton

YOUR REF:

6 August 2007

The General Manager
Digital Broadcasting
Department of Communications Information Technology & The Arts
GPO Box 2154
CANBERRA ACT 2601

Dear Sir/Madam

Submission - Digital Conversion of Self-Help Television Retransmission Sites

I am writing in response to your discussion paper requesting a submission from Shoalhaven City Council (Council) in relation to the Digital Conversion for Council's existing analogue Blackspot TV translator equipment, currently located at Clover Hill, Kangaroo Valley and Moeyan Hill, Berry.

After consideration of the issues raised, this submission provides comment on the following matters (items in italics are taken directly from your submission document):

Whether the use of individual digital transmitters for each service or the use of multiplexers, would be the most effective option for converting existing analogue self-help retransmission sites to digital in relation to:

- ***Technical Viability***

It is considered that five individual digital transmitters are preferable to the use of multiplexers.

Multiplexers are a more complex equipment option and as a result a failure of the multiplexer has the potential to disrupt the operation of all digital TV channels operating from the particular translator site, compared to the potential for interruption only to individual channels if separate digital transmitters are installed.

These digital transmitters and associated equipment should be installed at each existing TV translator site operated by Council.

- ***Costs of conversion, operation and maintenance***

The existing Council facilities will have sufficient space for an additional equipment rack. The rack will be required to hold the additional digital receive and transmit equipment and the extra antennae combiner.

It is expected that there should be adequate mains power capacity for the five low power digital transmitters.

A back-up mains power supply (UPS) will be required to maintain power to the digital transmitters in the event of a power failure.

The present hut cooling units ability to cope with the additional heat load from the digital transmitters will need to be considered when developing project estimates.

The existing 30 metre concrete monopole is expected to be able to support an additional TV transmit antennae or a replacement upgraded combined analogue and digital transmit antennae.

- ***Any other options for the digital conversion of self-help television retransmission sites***

Council is already receiving enquiries from viewers who are considering purchasing or have already purchased a digital TV set.

The two existing sites at Kangaroo Valley and Berry would benefit from the addition of digital transmission.

Consideration could also be given to the installation of an additional digital TV translator to serve the population centres in the area from Bawley Point, through Lake Tabourie and down south to Termeil. This area was originally identified as part of the TV Blackspot analogue program, however there was no technical solution available at that time.

Whether the DTH option for viewers residing in remote areas of Australia where the population is less than 500 should be adopted, rather than converting existing self-help retransmission sites from analogue to digital:

- There are small pockets of population in the Shoalhaven City area that are still unable to receive satisfactory TV reception from existing TV transmitter or translator sites. These viewers probably have no alternative other than to use the DTH option.

Any views regarding the timing of digital conversion of self-help retransmission sites:

- It is assumed that there will be a considerable period of parallel transmissions of both analogue and digital signals. If this is the case, the digital transmissions could commence as soon as the funding agreement is in place, the frequencies are available and the equipment can be installed.

Any other relevant issues not specifically addressed.

- At the Moeyan Hill, Berry site, the digital receive signal level and quality is expected to be satisfactory. At the Clover Hill, Kangaroo Valley site, the digital receive signal level and quality from both the Knights Hill parent station and the Mt Cambewarra translator station is low level and unreliable. As a result, funding will be required to increase the transmit signal radiated from Mt Cambewarra towards the Kangaroo Valley translator to a level that will provide satisfactory re-transmission levels.

Should this project proceed, a report will need to be prepared for consideration and adoption by a meeting of Shoalhaven City Council.

If you need further information about this matter, please contact Rob Waller, Radio Administrator on (02) 4429 3495. Please quote Council's reference 15360.

Yours faithfully



John Rushton
Communications & Electrical Manager