



S H I R E
of YARRA
RANGES

DISCUSSION PAPER

Digital Conversion of Self Help
Television Retransmission Sites

Closing Friday 10th August 2007

This Discussion Paper addresses some of the concerns raised in May 2005 by the Shire of Yarra Ranges to the Parliamentary Inquiry, Digital Television – Who’s Buying It?

It is considered that digital conversion of Self Help TV sites should be federally funded, as were the TV Black Spot Programs for new services and replacement of obsolete equipment.

Locality

The Shire of Yarra Ranges on Melbourne's eastern fringe takes in the breathtaking natural beauty of the Dandenong Ranges, Yarra Valley and Warburton Ranges. With over 40 townships and urban centres the Shire is sustained by a thriving local economy, rich social fabric and strong environmental values. Attracting well over 3 million visitors annually, the Shire is only 50 minutes from central Melbourne.

Background of TV Black Spots Programs in the Shire of Yarra Ranges

The Shire in 2000/2001 submitted 5 Expressions of Interest for TV services to DCITA for Federal Government funds to improve poor reception, mainly due to mountainous and heavily vegetated terrain. Under Round 1, four Black Spots were confirmed by DCITA at Healesville, Monbulk and Kalorama North and South. Under Round 2 a Black Spot was also confirmed at Tecoma/Belgrave. These TV Black Spots existed even though the main Melbourne TV transmitters at Mt Dandenong and three TV translators were within the Shire.

Following protracted processes, new analogue transmission facilities were established at Mt St Leonard for Healesville and at Monbulk, commencing operation in December 2003. As analogue solutions were not available for the other Black Spots due to spectrum limitations, they were considered for the TV Black Spots Alternate Technical Solutions (ATS) Program. Tecoma/Belgrave was field tested by the ABA in May 2004, who concluded the new digital TV coverage from the existing translator sites was adequate. Kalorama North is being (and Kalorama South has requested to be) considered under the ATS program. The Shire is pursuing the unprecedented solution in the ATS Program of a cable solution instead of the preferred digital transmitter solution.

Digital Solutions for TV Black Spots

The Shire of Yarra Ranges has for a long time pursued Digital TV as the appropriate solution to its TV reception problems, yet has been restricted by Guidelines of the TV Black Spots Program, which only funded analogue solutions. Digital TV transmission from Mt Dandenong commenced on 1 January 2001, six months after Round 1 Expressions of Interest were called by DCITA for old technology analogue solutions and before Round 2 EOI's were called. In March 2001 the Shire (with equipment supplier support) first demonstrated its commitment to digital TV by field testing the new services in all its Black Spots (limited in Tecoma/Belgrave) to avoid, if at all possible, the cost and difficulty of establishing new transmitter sites. Unfortunately the terrain difficulties were too great, even for the superior technical characteristics of digital, with the best results in Kalorama South relying solely and unsuccessfully on reflected digital signals. This practical approach by the Shire to use new digital services to solve analogue Black Spots was followed by the DCITA and ABA, who later field tested in Bacchus Marsh and determined it as the preferred solution there, and formalised it in the subsequent TV Black Spots Alternative Technical Solutions (ATS) Program.

Concerns Raised in 2005 and Reviewed in the context of the Discussion Paper

The Shire raises the following concerns and comments on the Paper:

1. Our residents are pursuing the Shire to provide digital facilities so as to have access to the same benefits as the majority of the Australian population;
2. The Shire indicated strongly in 2003 it does not have the capacity to fund digital conversion of its two facilities and continues to do so;
3. It is considered that a Federal Government funding program will be required for the digital conversion of existing Self Help transmitters that have been installed throughout Australia, similar to the TV Black Spots Programs;
4. The Discussion Paper indicates total costs of digital conversion of the 650 analogue sites, but does not indicate the necessary commitment or intention to Federally fund them;
5. As suggested in the Paper, with incremental upgrades Digital conversion will cost less if some of the existing equipment can be reused, as will be the case with the Shire's two facilities if a simulcast period is not required;
6. It is understood equipment prices for stand alone digital transmitters are likely to be less than the Papers suggested average of \$138,000 for 5 services at a site;
7. As there are two additional new national digital channel licences currently in the process of being tendered, it is put forward that Self Help sites should now also be Federally funded for both the new services and completed with the digital conversion of sites to avoid resident requests for future upgrades;
8. Single Frequency Network (SFN) digital transmitter sites are more expensive and less desirable for Self Help operators due to their complexity, management and licensing issues when sharing spectrum;
9. Should digital conversion of a Self Help transmitter require a site to be on an SFN, operating costs of up to \$50,000 per year would also need to be funded, as may be required by the broadcasters to run the facility. The Shire does not have the capacity to fund this additional ongoing cost, and would therefore seek Federal assistance for funding, which is understood to have been provided in other solutions in the ATS Program.
10. Some of the Shire's Healesville site analogue services are co-channelled with the Warburton site digital services, so operation as an SFN may be necessary if channels are not changed with digital conversion;
11. The Shire would not support use of multiplexed services due to the technical complexity of setting up and maintaining, as well as our residents being denied the major benefits of digital being High Definition, multi-channelling and surround sound;

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12. The Papers timing of digital conversion before general analogue switch –off is supported. The reliance on analogue input is not an issue for the Shire as the DCITA permitted the Shire to use digital input for its two facilities, and therefore their analogue output can continue long term. Resident pressure to convert these facilities is however occurring;
 13. The Paper confirms the Shire understanding that an analogue/digital simulcast period for Self Help TV facilities in general has not been considered in any known legislation, unlike requirements for the metropolitan and regional network licensees. Simulcast is not possible at the Shire’s Healesville site due to equipment room space limitations;
 14. Simulcast analogue and digital transmissions from many Self Help TV sites would require significant spectrum planning by the ABA to confirm availability of duplicate channel sets that do not cause interference with other nearby sites. Simulcasts are unlikely to be achievable except at remote sites or when spectrum is freed up at the 2010-2012 end of analogue transmissions, or through the use of more complex SFN’s;
 15. Simulcast analogue and digital transmissions are not financially possible for many Self Help TV operators as their ongoing costs could double, without any increase in income, as no income is generated for the transmissions;
 16. One practical and cost effective way for many Self Help TV facilities to be converted to digital is to advise residents 6-12 months in advance that analogue transmission will cease, and that they must obtain a digital receiver for use after that date. Equipment changeover at the Shire’s sites could require these facilities to be off air for about a day; and
 17. With both Shire sites having digital input, the Shire’s preferred method of conversion is to complete it at the same time as analogue switch-off of the main Melbourne Mt Dandenong transmitters. Thus a separate preparation process of advance notices and consultation by the Shire is avoided.

Thank you for this opportunity to be able to provide input to future options for digital TV.

Should you have any further queries you are welcome to contact Theo Knol, Senior Developments Engineer on telephone (03) 9294 6749.

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