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**RYAN CORNER WIND FARM – PRE-CONSTRUCTION TV/RADIO  
RECEPTION SURVEY**

**[ final ]**

**20<sup>th</sup> January 2010**

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## **EXECUTIVE SUMMARY**

This Report documents the results of a pre-construction TV/Radio reception survey at a sample of dwellings within a distance of 5 Km of the proposed Ryan Corner Development Pty Ltd Wind Farm at Ryan Corner Vic. 21 dwellings distributed around the proposed wind farm were surveyed in October 2009 prior to commencement of construction as a baseline for future comparison with post construction survey results and for reference should any complaints be received of degraded reception after the facilities are operational. The survey results from the visits to the individual residences are included in this Report.

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# **1. BACKGROUND**

Ryan Corner Development Pty Ltd is to construct a wind farm in south west Victoria approximately 8 km north east of the town of Yambuk and about 15 km north west of Port Fairy. The Project includes the construction of up to 68 wind turbines located on cleared land used for agricultural purposes. The turbines proposed will consist of tapered cylindrical metal towers with three bladed generators mounted in Nacelles on top of the towers.

To satisfy the requirements of Condition 24 of Planning Permit No 20060222, Environmental Resources Management Australia (ERM), on behalf of Ryan Corner Development Pty Ltd, has engaged Lawrence Derrick & Associates to carry out a pre construction survey of TV/Radio reception at selected locations within 5 km of the turbine locations. The pre construction survey was undertaken in the field in October 2009 prior to the commencement of any turbine erection.

## **2. INTRODUCTION**

This report covers the outcomes of the Pre-construction TV/Radio survey as outlined below for the representative sample of residences within 5 Km of the wind farm boundaries.

## **3. INVESTIGATION PHASES**

A two-phase investigation is required should any complaint of TV/Radio reception be received after the wind farm is operational to determine if any interference to domestic TV/Radio reception exists as a result of the operation of the wind farm:

- ◆ Phase 1 - Pre Construction Area Visit, TV/Radio Survey of Dwellings and Report
- ◆ Phase 2, If a reception complaint is received then a Post Construction Area Visit, TV/Radio Survey of Dwellings and Report is required.
- ◆ This Report covers Phase 1.

### **3.1 Phase 1**

In Phase 1 individual dwellings surrounding the proposed wind facilities were visited in October 2009 to assess the then quality of TV and radio reception before the wind farm was constructed and became operational. The original pre-construction sampling was based on residents who were available and willing to take part in the survey during the period of the field visits and who lived within the 5 km zone. The residences selected were based on responses to phone contact with land holders and residents within the target zone.

### **3.2 Phase 2**

In Phase 2 if necessary the dwellings visited in Phase 1 will be re re-visited after the wind farm is fully operational to determine if there were impacts of the turbines on TV reception when compared with the pre-construction observations. This survey would establish if any complaints of reception is as a result of the wind farm operation.



## **4. BROADCASTING SERVICES IN THE AREA**

The area surrounding the wind farm location is potentially served by four TV transmitting station locations serving Ballarat, Warrnambool, Portland and Western Victoria. The area is on the fringe of the coverage area of these station and the actual station(s) utilised by individual residents varies depending on local topography. On the southern side of the wind farm site the Warrnambool station is more often used. To the north the Portland TV stations are also utilised with a small number using Ballarat or Western Victoria stations. Portland TV stations are also used as the TV source for the Yambuk area. Currently full digital TV services are also available from three stations with Portland at present restricted to ABC, SBS and WIN services. Satellite Pay TV is available from Austar in the area. AM & FM radio stations which are available in the area include Ballarat, Western Victoria, Warrnambool, and Portland stations as well as coverage from some of the Melbourne AM stations. A list of the TV and sound broadcasting stations are shown in Attachments 3 and 4.

## **5. FIELD SURVEY METHODOLOGY**

For the TV Broadcasting services pre construction field measuring Phases, a representative sample of residents were surveyed to qualitatively rate their TV reception with a benchmark measurement of TV signal level at the antenna outlet providing signal to the TV set. The levels were measured to indicate whether minimum acceptable levels existed at the TV set antenna input to determine the degree of vulnerability TV reception may have to wind farm effects. The particular residents invited to be surveyed were located within 5 km of the wind farm boundaries and were determined from responses to phone contact with residents including stakeholders in the area. The residents sampled were distributed around the wind farm as far as possible with a number selected in the Yambuk town itself. As mentioned above there are four possible TV station locations serving the area. The choice of TV station used in the town varied from residence to residence between Portland and Warrnambool so a reasonable number were surveyed because of the two varying directions of TV reception involved. There has also been a number of residents in Yambuk and surrounding areas who have experience wind turbine interference from the operational Pacific Hydro Yambuk wind farm. This interference was mainly to the reception of the Portland analogue TV stations located on Mt Clay. Final remedial action by Pacific Hyrdo resulted in reception being changed to the Warrnambool stations at Tower Hill in some cases or upgrades to antennas for continuing Portland station reception.

The survey process involved:

- ◆ At each dwelling recording of TV antenna type, condition and distribution system details
- ◆ Photograph antenna installations
- ◆ Photograph of dwelling for reference
- ◆ Recording of geographic coordinates by GPS reading
- ◆ View and rate picture quality for all available channels
- ◆ Measurement of each TV channel signal level by connection of residents antenna to a signal level measuring instrument.
- ◆ At residences where analogue only TV was received a measurement of digital signal levels was taken if the current antenna system was suitable for the digital channels

Results for each residence surveyed were recorded on a standard form.

## **6. SURVEY RESULTS**

Surveys at 21 residences surrounding the wind farm boundaries within 5 Km were carried out . Survey Forms for the total of 21 were completed. In view of the fact that generally residents are unclear what AM and FM stations they listened to, the indifferent antennas used (lengths of wire, internal to set, whips) and no problems to AM/FM reception as a result of wind farms being reported in Australia or Overseas, individual AM/FM Radio assessments were not made. An assessment of all receivable AM and FM stations was made in the Yambuk township and in an open area in St Helens Rd on a car radio as a bench mark for the area

As indicated above residents surveyed watch the TV channels radiated from one or more of the Warrnambool, Ballarat, Portland or Western Victoria stations. As the signal strengths are medium to low, antenna amplifiers are required in most locations. Picture quality varied considerably at the time of the visits from good to very poor. Most antenna installations were appropriate and in good to fair condition. A few had minor faults or could have been improved to achieve better reception. A significant number of residents have not yet converted to digital reception

The completed individual TV survey results are contained in Attachment 1.

## **7. PHASE 1 CONCLUSIONS**

The survey results the 21 surveyed residences within 5 Km of the wind farm show that TV reception at the time of the visits was not been affected by any significant ghosting or other external sources of interference. Where degraded picture quality existed it was due to low signal levels resulting in “snowy” analogue pictures. In most cases where appropriate antenna systems had been installed for digital TV stable digital reception was achieved. A few residents had tried digital set top boxes (DSTB) on existing antenna systems without long term success and had reverted to analogue reception.

AM and FM Radio reception was benchmarked with a car radio at locations in the Yambuk township and in an open area in St Helens Rd. All receivable AM and FM stations were logged for future comparison in the unlikely event that complaints of radio reception are received when the wind farm is operational

## **Attachment 1 - TV Reception Survey Result Forms Ryan Corner Vic**

The following pages in this Attachment contain the results of the pre-construction surveys carried out at residences within the 5 Km range of the wind turbines.

## 1. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** A & B Collins

**Address:** 800 Fingerboard Rd Yambuk

**Phone Numbers:** 03 5568 4374 Mob 0408 301 558

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 13<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E593339	N5758838
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Guyed Pole on Roof	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Panels Warrnambool & Portland	VHF nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Three	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55
-	63	63		-	64

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
64	64	61		62	66
MER					
BER					

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
60				58	64

	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>1</sup> Scale</u>	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Both Portland & Warrnambool TV antennas installed**

**Warrnambool digital TV is the usual reception mode which is usually stable**

**This location had Yambuk wind turbine interference at times on Portland analogue reception**

**No turbine flicker interference on Portland analogue channels at time of visit**

**Final solution by Pacific Hydro contractor was to receive digital TV from Warrnambool stations**

1 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Collins 800 Fingerboard Rd. Yambuk



## 2. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Michael Carey

**Address:** 40 Monck St Yambuk

**Phone Numbers:** 03 5568 4240

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 13<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E593314	N5758764
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	J Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF panel vert Warrnambool panel hor Portland	VHF nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor -	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Three	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/ <b>Wind Turbines</b>	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
59	57	55		57	57
MER					
BER					

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

				ABC	SBS

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
53	N/A	N/A		57	55



	ANALOGUE PICTURE QUALITY no assessment - digital reception only used				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>2</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

#### Further comments on resident's TV installation and reception quality

**Both Portland & Warrnambool TV antennas installed**

**Warrnambool digital TV is the usual reception mode which is usually stable**

**This location had Yambuk wind turbine interference at times on Portland analogue reception**

**No assessment of analogue reception as set was not tuned for analogue channels**

**Final solution by Pacific Hydro contractor was to receive digital TV from Warrnambool station**

2 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Carey 40 Monck St. Yambuk



### 3. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** L & K Watts  
**Address:** 4 Lindsay St Yambuk  
**Phone Numbers:** 03 5568 4340  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 14<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E593013	N5758574
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Tower	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Yagi 18 El	VHF Nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

#### TELEVISION STATION LOCATION: Mt Clay Portland

##### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
64	70	66		71	75

##### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
67				66	73
MER					
BER					

#### TELEVISION STATION LOCATION:

##### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


##### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels


	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>3</sup> Scale</u>	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue Reception used**

**Stable Digital reception all channels on Test Receiver**

**Yambuk wind turbines generally in line with Mt Clay TV site but no flicker interference being experienced**

**Wireless Broadband installed - base station at St Helens**

3 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Watts, L & K 4 Lindsay St Yambuk



#### 4. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** T & A Sinnott  
**Address:** 157 Yambuk Lake Rd Yambuk  
**Phone Numbers:** 03 5568 4277  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 14<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E593018	N5756594
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Guyed Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF	VHF Combined VHF/UHF Yagi
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

#### TELEVISION STATION LOCATION: Tower Hill Warrnambool

##### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55
67	65	72		75	52

##### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
70	69	71		71	65
MER					
BER					

#### TELEVISION STATION LOCATION:

##### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


##### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels


	ANALOGUE PICTURE QUALITY Warrnambool not assessed				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>4</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Stable Digital Reception**

**Large Screen TV Set**

**Previous issues with Yambuk turbine interference to Portland analogue reception**

**Recent Antenna Upgrade**

**Wireless broadband**

4 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Sinnott 157 Yambuk Lake Rd Yambuk



## 5. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Brian & Elizabeth Kenna

**Address:** 25 Youls Rd Yambuk

**Phone Numbers:** 03 5568 4206

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 14<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E594644	N5757131
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Panel	VHF nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
52	50	51		55	50

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
50				50	48
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels




	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>5</sup> Scale</u>	1 2 3 4 <b>5</b>	1 2 3 4 <b>5</b>	1 2 3 4 <b>5</b>	1 2 3 4 <b>5</b>	1 2 3 4 <b>5</b>
<u>Reception Impairment</u> (None/Occasional/Continuous)	<b>N O C</b>	<b>N O C</b>	<b>N O C</b>	<b>N O C</b>	<b>N O C</b>
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue only reception available**

**Good analogue reception**

**External FM antenna**

5 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Kenna 25 Youls Rd. Yambuk



## 6. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Clive Watts

**Address:** 42 Youls Rd Yambuk

**Phone Numbers:** 03 5568 4250

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 14<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E594809	N5757457
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole on roof	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Yagi 18 El?.	VHF Nil
<b>Antenna Orientation</b>	Correct/ <b>Moderately</b> Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/Good/Fair/ <b>Poor (missing elements)</b>	
<b>Standard of Installation</b>	Excellent/Good/ <b>Fair</b> /Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain(circle all that apply)</b>	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions(circle all that apply)</b>	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
58	56	59		65	54

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
56				58	54

#### Digital Channels


	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>6</sup> Scale</u>	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 4 <b>5</b>	1 2 <b>3</b> 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	<b>N</b> O C	N O <b>C</b>
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	L M S	L <b>M</b> S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**DSTB purchased but not installed**

**Antenna needs replacement – missing elements**

**Analogue pictures noisy on all channels except ABC**

**No interference from Yambuk turbines in direction of Mt Clay**

6 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Watts, Clive 42 Youls Rd. Yambuk



## 7. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Van Der Aa  
**Address:** 3959 Princes Hwy Yambuk  
**Phone Numbers:** 03 5568 4288  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 15<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E594876	N5756269
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	<b>Yes/No</b> Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Short Pole on roof	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF <b>Vert Panel</b> .	VHF <b>nil</b>
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

**TELEVISION STATION LOCATION: Tower Hill Warrnambool**

**Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels**

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55
42	69	74		55	70

**Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels**

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
67	70	74		72	73
MER					
BER					

**TELEVISION STATION LOCATION:**

**Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels**


**Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels**


	ANALOGUE PICTURE QUALITY Warrnambool not assessed				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>7</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Digital only reception for main TV set**

**Large digital TV set**

**Analogue set in bedroom – no VHF antenna for ABC & WIN**

**Initial Yambuk turbine interference to Portland channels – solution was to use Warrnambool stations**

<sup>7</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Van Der Aa 3959 Princes Hwy Yambuk.





## 8. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Van Der Aa

**Address:** Cottage 3959 Princes Hwy Yambuk

**Phone Numbers:** 03 5569 4288

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 15<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E594876	N5756269
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	<b>Short Pole on roof</b>	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF <b>Panel</b> .	VHF <b>Nil</b> .
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	One	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/ <b>Wind Turbines</b>	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
82	83	76		80	79

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

				ABC	SBS

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>8</sup> Scale</u>	1 2 3 4 <b>5</b>	1 2 3 4 <b>5</b>	1 2 <b>3</b> 4 5	1 2 3 4 <b>5</b>	1 2 3 4 <b>5</b>
<u>Reception Impairment</u> (None/Occasional/Continuous)	<b>N</b> O C	<b>N</b> O C	N O <b>C</b>	<b>N</b> O C	<b>N</b> O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L <b>M</b> S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue reception of Portland Channels**

**Interference from Yambuk turbines identified on SC 10 at time of visit**

**Other channels had no interference at time**

8 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Van Der Aa Cottage 3959 Princes Hwy Yambuk



## 9. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** John & Robert Winter

**Address:** 414 Youls Rd Yambuk

**Phone Numbers:** 03 5568 4261

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 15<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E595380	N5761115
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Log periodic	VHF nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor (bent element)	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
80	73	76		74	73
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Warrnambool not assessed -digital reception used				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>9</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Large digital TV set**

**Good digital TV reception all channels.**

**Austar connected**

**Wireless broadband subscriber**

<sup>9</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Winter 414 Youls Rd Yambuk



**10. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY****Name of Resident:** Kieron Moore**Address:** "Aringa West" 438 Fingerboard Rd Yambuk**Phone Numbers:** 03 5568 4262 Mob 0429 327 669**Broadcast Engineer:** Laurie Derrick**Date of Visit:** 15th October 2009**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E596977	N5758287
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	LowPole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Corner Reflector	VHF 4 stack co-phased
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	One	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/ <b>Foliage</b> /Buildings/Towers/Power lines/Wind Turbines	

**TELEVISION STATION LOCATION: Tower Hill Warrnambool****Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels**

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

**Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels**

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
40	48	40		46	55
MER					
BER					

**TELEVISION STATION LOCATION:****Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels**


**Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels**

				ABC	SBS

	ANALOGUE PICTURE QUALITY Warrnambool not assessed digital only used				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>10</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Good Digital reception  
Antenna pole rocks in wind**

<sup>10</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Moore “Aringa West” 438 Fingerboard Rd Yambuk.



## 11. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Geoff Youl  
**Address:** 531 Youls Rd Yambuk  
**Phone Numbers:** 03 5568 4232  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 15<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E595359	N5762242
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole on chimney	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Log periodic.	VHF Nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	One	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/ <b>Foliage</b> /Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
45	64	62		61	60
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Warrnambool not assessed digital only used				
	CH 7	CH 9	CH 10	CH 2	CH
<u>ITU Picture Quality<sup>11</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Good Digital reception all channels on DSTB  
Legacy Portland antenna also**

11 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Youl, Geoff 531 Youls Rd Yambuk.



## 12. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Mick McNamara

**Address:** 290 Fingerboard Rd Yambuk

**Phone Numbers:** 03 5568 4224 mob 0448 684 231

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 15th October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E597532	N5756972
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	<b>Yes/No</b> Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole beside house	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF panel	VHF Nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/ <b>Foliage</b> /Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
49	50	51		55	49

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
52	N/A	N/A		57	49
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

				ABC	SBS

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS



	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>12</sup> Scale</u>	1 2 <b>3</b> 4 5	1 2 <b>3</b> 4 5	1 2 3 <b>4</b> 5	1 2 3 4 5	1 2 <b>3</b> 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O C	N O <b>C</b>
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L <b>M</b> S	L <b>M</b> S	<b>L</b> M S	L M S	L <b>M</b> S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

Analogue reception only - noisy  
ABC not tuned  
Antenna Pole sways in wind  
Austar also

12 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



McNamara 290 Fingerboard Rd Yambuk



### 13. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** David Wright  
**Address:** 44 Yambuk Lake Rd Yambuk  
**Phone Numbers:** 03 5568 4251  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 15th October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E593159	N5757916
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Roof Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Panel	VHF nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

**TELEVISION STATION LOCATION:** Tower Hill Warrnambool

**Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels**

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

**Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels**

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
56	51	50		49	45
MER					
BER					

**TELEVISION STATION LOCATION:**

**Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels**


**Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels**


	ANALOGUE PICTURE QUALITY not assessed digital only reception				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>13</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Digital only reception from Warrnambool Station**

**Stable digital reception on all channels except ABC – intermittent pixilation**

13 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Wright 44 Yambuk Lake Rd Yambuk.





#### 14. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Andrew Dumesny  
**Address:** 1771 Hamilton -Port Fairy Rd Port Fairy  
**Phone Numbers:** 03 5568 9317  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 16th October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E599686	N5764619
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Tower	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Panel	VHF nil.
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor (yagi reflector missing)	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Three	
<b>Distance from Transmitters</b>		
<b>Terrain(circle all that apply)</b>	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions(circle all that apply)</b>	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

#### TELEVISION STATION LOCATION: Mt Clay Portland

##### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
55	60	56		64	56

##### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
57	N/A	N/A		57	55
MER					
BER					

#### TELEVISION STATION LOCATION:

##### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


##### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>14</sup> Scale</u>	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 <b>3</b> 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	L <b>M</b> S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue only reception**

**SBS not tuned on TV set**

**Vertical Pol. yagi antenna also?**

<sup>14</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Dumesny 1771 Hamilton – Port Fairy Rd Port Fairy



## 15. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** John Homan  
**Address:** 32 Riverside Rd Orford  
**Phone Numbers:** 03 5568 9355  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 16th October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**  
**(at Petherton Rd Gate)**

AMG 66	Z54	E597737	N 5765291
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Panel	VHF nil.
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
57	55	50		59	56

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
53				56	56
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

				ABC	SBS

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Portland not assessed – digital reception only				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>15</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue noisy pictures**

**Digital reception was stable**

<sup>15</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Homan 32 Riverside Rd Orford



## 16. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Nigel Hogan

**Address:** 1357 Hamilton – Port Fairy Rd Port Fairy

**Phone Numbers:** 03 5568 5225 Mob 0428 304 743

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 16<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E601405	N5760979
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole on chimney	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Panel	VHF nil.
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/Good/ <b>Fair</b> /Poor (missing elements)	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/ <b>Foliage</b> /Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
63	61	61		70	63

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
64				67	60
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

				ABC	SBS

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>16</sup> Scale</u>	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 4 <b>5</b>
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	N O <b>C</b>	<b>N</b> O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ <b>TC</b> NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue Only reception**

**Sound noise – static? On SC 10**

<sup>16</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Hogan 1357 Hamilton – Port Fairy Rd Port Fairy





## 17. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Pauline Reed

**Address:** 1210 Port Fairy – Hamilton Rd Port Fairy

**Phone Numbers:** 03 5568 5211

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 16<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E602613	N5960105
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Chimney Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Yagi 24 El Hor.	VHF Yagi Vert 4 Element
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/Good/ <b>Fair</b> /Poor <b>loose/missing elements</b>	
<b>Standard of Installation</b>	Excellent/Good/ <b>Fair</b> /Poor	
<b>Number of Antenna Outlets</b>	Two	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Lookout Hill Ballarat

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 36	Prime CH 33	SC 10 CH 39		ABC CH 42	SBS CH 30
68	75	70		68	76

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 37	Prime CH 46	SC 10 CH 40		ABC CH 41	SBS 43
67	59	64		63	63
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY Ballarat not assessed digital only used				
	WIN CH 45	Prime CH 51	SC 10 CH 48	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>17</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Ballarat Digital reception only**

**Legacy VHF antenna vert Pol Warrnambool**

**Stable digital reception**

<sup>17</sup> ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Reed 1210 Port Fairy – Hamilton Rd Port Fairy



## 18. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** B. Walters  
**Address:** 19 Gapes Rd Tarrone  
**Phone Numbers:** 03 5568 9213  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 16<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E599329	N5765865
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Low Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF	VHF/UHF combined yagi
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Three	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55
	64	69			64

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
66	70	69		69	67
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS



	ANALOGUE PICTURE QUALITY not assessed -digital reception used				
	CH	CH	CH	CH	CH
<u>ITU Picture Quality<sup>18</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Large Flat Screen TV Set**

**Stable digital reception on all channels except SBS – intermittent pixelation**

**Analogue reception not used**

**Austar Also**

18 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Walters 19 Gapes Rd Tarrone



## 19. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Max Crow

**Address:** 631 Port Fairy – Hamilton Rd Port Fairy

**Phone Numbers:** 03 5569 1754

**Broadcast Engineer:** Laurie Derrick

**Date of Visit:** 16<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E603038	N5755343
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/ <b>No</b> Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Chimney Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable (low gain)	
<b>Antenna Details</b>	UHF	VHF/UHF Combined Yagi
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor (missing elements)	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	one	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
55	48	51		48	38
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

				ABC	SBS

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

				ABC	SBS

	ANALOGUE PICTURE QUALITY not assessed digital only reception				
	WIN CH 9	Prime CH 52	SC 10 CH 49	ABC CH 2	SBS CH 55
<u>ITU Picture Quality<sup>19</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**DSTB used**

**Pixilation sometimes**

**Austar also**

19 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Crow 631 Port Fairy – Hamilton Rd Port Fairy



## 20. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Helen Finnigan  
**Address:** 1302 Spencer Rd Port Fairy  
**Phone Numbers:** 0417 122 847  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 16<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54 (scaled)	E602000	N5763200
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Low pole gutter level	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Yagi 12 El	VHF Yagi 8El
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/ <b>Poor</b> (VHF antenna poor condition)	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Three	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/ <b>Foliage</b> /Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Tower Hill Warrnambool

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 9	Prime CH 52	SC 10 CH 49		ABC CH 2	SBS CH 55

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 45	Prime CH 51	SC 10 CH 48		ABC CH 50	SBS CH 53
64	67	71		65	68
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 10	Prime CH 34	SC 10 CH 31		ABC CH 5A	SBS CH 28

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 11	Prime CH 12	SC 10 CH 9A		ABC CH 6	SBS CH 7

	ANALOGUE PICTURE QUALITY Warrnambool. not assessed digital only reception				
	CH	CH	CH	CH	CH
<u>ITU Picture Quality<sup>20</sup> Scale</u>	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Digital reception only from Warrnambool**

**Stable digital reception all channels except Prime HD - freezing**

20 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)





Finnigan 1302 Spencer Rd Port Fairy





## 21. REPORT ON RESIDENT'S TV INSTALLATION AND RECEPTION QUALITY

**Name of Resident:** Natalie Youl  
**Address:** 60 St Helens Rd Yambuk  
**Phone Numbers:** 0417 166 233  
**Broadcast Engineer:** Laurie Derrick  
**Date of Visit:** 17<sup>th</sup> October 2009

**Location (AMG Map Reference, Zone, Easting, Northing) please indicate coordinate system being used:**

AMG 66	Z54	E593912	N5759358
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<b>Field Strength Meter</b> Make: Unaohm	Model: T40A Serial No 110897	Calibrated: 19/06/2009 Accuracy:
<b>Antenna Cable:</b> Brand(if known) Coax	Type(eg RG59)	Length: (metres)
<b>Masthead Amplifier</b> (if used) Brand:	Yes/No Model:	Gain:(dB)
<b>Antenna Height</b> (above ground)	Pole	
<b>Antenna Suitability</b>	Very Suitable/ <b>Suitable</b> /Not Suitable	
<b>Antenna Details</b>	UHF Log periodic	VHF nil
<b>Antenna Orientation</b>	<b>Correct</b> /Moderately Correct/Incorrect	
<b>Condition of Antenna</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Standard of Installation</b>	Excellent/ <b>Good</b> /Fair/Poor	
<b>Number of Antenna Outlets</b>	Four	
<b>Distance from Transmitters</b>		
<b>Terrain</b> (circle all that apply)	Flat/Very low hills/Mountains/Suburban/Urban/ <b>Rural</b>	
<b>Obstructions</b> (circle all that apply)	None/Hills/Mountains/Foliage/Buildings/Towers/Power lines/Wind Turbines	

### TELEVISION STATION LOCATION: Mt Clay Portland

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels

WIN CH 57	Prime CH 66	SC 10 CH 63		ABC CH 60	SBS CH 69
55	50	53		60	52

#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels

WIN CH 56	Prime CH	SC 10 CH 62		ABC CH 59	SBS CH 68
56	N/A	N/A		54	52
MER					
BER					

### TELEVISION STATION LOCATION:

#### Measured Terminal Voltage at TV Receiver (dBuV): Analogue Channels


#### Measured Terminal Voltage at TV Receiver (dBuV): Digital Channels


	ANALOGUE PICTURE QUALITY Portland				
	WIN CH 57	Prime CH 66	SC 10 CH 63	ABC CH 60	SBS CH 69
<u>ITU Picture Quality<sup>21</sup> Scale</u>	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5	1 2 3 <b>4</b> 5
<u>Reception Impairment</u> (None/Occasional/Continuous)	N O C	N O C	N O C	N O C	N O C
<u>Impulse Noise</u> (None/Occasional/Light/ Moderate/Severe/Bands)	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B	N O L M C S B
<u>Flicker Interference</u> (Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
<u>Ghosting</u> (No Ghosting/Single Ghost/Multiple Ghosts)	NG SG MG	NG SG MG	NG SG MG	NG SG MG	NG SG MG
(Light/Moderate/Severe)	L M S	L M S	L M S	L M S	L M S
(Sync`Tearing/Flag Waving/Colour Loss)	ST FW CL				
<u>Noise in Picture</u> (Light/Moderate/Severe)	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S	<b>L</b> M S
(Colour Noise/Luminance Noise/Loss of Colour)	CN LN LC	CN LN LC	CN LN LC	CN LN LC	CN LN LC
<u>Sound Interference</u> (Loss of FM Quieting/Threshold Clicks/No Sound)	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS	LQ TC NS
<u>Hetrodyne Interference</u> (Herringbone/Sound Bars/Patterning)	H SB P	H SB P	H SB P	H SB P	H SB P
<u>How long have these reception problems been experienced?</u> (Weeks/Months/Years/)	W M Y	W M Y	W M Y	W M Y	W M Y

**Further comments on resident's TV installation and reception quality:**

**Analogue reception of Portland Channels slightly noisy pictures**

**Digital reception test carried out – WIN, ABC, SBS channels stable at time**

21 ITU Picture Quality Scale: Picture Quality (Impairment) 5=Excellent(imperceptible impairment); 4=Good (perceptible impairment); 3=Fair (slightly annoying); 2=Poor (annoying) 1=Bad (very annoying)



Youl, Natalie 60 St Helens Rd Yambuk



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## Attachment 2. Reception of AM & FM Broadcasting Stations

### A AM RADIO STATIONS

Freq kHz	At Yambuk Township	In St Helens Rd	Station Identity	Station Location
531	Nil	Weak	3GG	Warragul
558	Nil	OK	7BU	Burnie Tas
594	OK	OK	ABC 3WV	Horsham
621	OK	OK	ABC 3RN	Melbourne
693	Weak noisy	OK	3AW	Melbourne
774	OK	OK	ABC 3LO	Melbourne
882	OK	OK	3YB	Warrnambool
900	Nil	Weak	7AD	Devonport Tas
927	Weak noisy	OK	3UZ	Melbourne
963	Weak noisy	OK	5SE	Mt Gambier SA
981	OK	OK	3HA	Hamilton
1026	Weak	OK	3PB	Melbourne
1089	Weak	Weak	3WM	Horsham
1116	Weak	Weak	3AK	Melbourne
1134	OK	OK	3CS	Colac
1224	Weak noisy	Nil	3EA	Melbourne
1314	OK	OK	3BT	Ballarat
1341	V. Weak noisy	Weak	HPON	Geelong
1377	Weak	Nil	3MP	Melbourne
1422	Weak	Nil	HPON	Melbourne
1602	OK	OK	ABC 3WL	Warrnambool

### B FM RADIO STATIONS

Freq MHz	At Yambuk Township	In St Helens Rd	Station Identity	Station Location
88.9	OK	OK	3HFM	Hamilton
89.7	OK	OK	ABC 3JJJ	Warrnambool
91.3	OK	OK	ABC 3PNN	Warrnambool
91.7	OK	OK	ABC 3PNN	Western Vic
92.1	OK	OK	ABC 3ABCFM	Warrnambool
92.5	OK	OK	ABC 3ABCRN	Western Vic.
93.3	OK	OK	ABC 3ABCFM	Western Vic
93.7	Nil	OK	3HFM	Portland

94.1	Weak	OK	ABC 3ABCCR	Western Vic
95.7	Weak	Nil	ABC 3ABCRN	Nhill?
94.9	Weak	OK	ABC 3JJJ	Western Vic
95.3	OK	OK	3YFM	Warrnambool
96.9	OK	OK	ABC 3SWR	Portland
98.5	OK	OK	ABC 3ABCRN	Portland
99.3	OK	OK	3RPC	Portland
101.7	OK	OK	ABC 3ABC RN	Warrnambool
103.7	Weak	Nil	3WAY	Warrnambool
105.5	Weak	Nil	ABC 3ABCFM	Ballarat
107.1	Weak	Nil	ABC 3JJJ	Ballarat
107.9	Weak	Nil	ABC 3CRR	Ballarat

Note Observations were carried out on a car radio in the Yambuk township and in St Helens Rd during daylight hours on 14<sup>th</sup> & 17<sup>th</sup> October 2009 respectively. All stations receivable at the times were noted regardless of service area. No interference was observed on any station.

### Attachment 3. TV Stations in the Area

<b>TX Location/</b>	<b>Operator</b>	<b>Analog Channels</b>	<b>Digital Channels</b>	<b>Comment</b>
<b>Ballarat Lookout Hill</b>	<b>ABC</b>	<b>42 H</b>	<b>41 H</b>	
	<b>SBS</b>	<b>30 H</b>	<b>43 H</b>	
	<b>VTV</b>	<b>36 H</b>	<b>37 H</b>	<b>WIN</b>
	<b>BCV</b>	<b>39 H</b>	<b>40 H</b>	<b>SC 10</b>
	<b>AMV</b>	<b>33 H</b>	<b>46 H</b>	<b>Prime</b>
<b>Western Victoria Mt Dundas</b>	<b>ABC</b>	<b>5A H</b>	<b>6 H</b>	
	<b>SBS</b>	<b>28 H</b>	<b>7 H</b>	
	<b>VTV</b>	<b>10 H</b>	<b>11 H</b>	<b>WIN</b>
	<b>BCV</b>	<b>31 H</b>	<b>9A H</b>	<b>SC 10</b>
	<b>AMV</b>	<b>34 H</b>	<b>12 H</b>	<b>Prime</b>
<b>Warrnambool Tower Hill</b>	<b>ABC</b>	<b>2 V</b>	<b>50 V</b>	
	<b>SBS</b>	<b>55 V</b>	<b>53 V</b>	
	<b>VTV</b>	<b>9 V</b>	<b>45 V</b>	<b>WIN</b>
	<b>BCV</b>	<b>49 V</b>	<b>48 V</b>	<b>SC 10</b>
	<b>AMV</b>	<b>52 V</b>	<b>51 V</b>	<b>Prime</b>
<b>Portland Mt Clay</b>	<b>ABC</b>	<b>60 H</b>	<b>59 H</b>	
	<b>SBS</b>	<b>69 H</b>	<b>68 H</b>	
	<b>VTV</b>	<b>57 H</b>	<b>56 H</b>	<b>WIN</b>
	<b>BCV</b>	<b>63 H</b>	<b>62 H</b>	<b>SC 10</b>
	<b>AMV</b>	<b>66 H</b>		<b>Prime</b>

## Attachment 4. AM and FM Stations in the Area

### A. Ballarat

Station	Frequency	AM/FM	Site	Type
3ABCFM	105.5 MHz	FM	Lookout Hill	ABC
3JJJ	107.1 MHz	FM	Lookout Hill	ABC
3CRR	107.9 MHz	FM	Lookout Hill	ABC
3BT	1314 KHz	AM	Ballarat	Commercial

### B. Western Victoria

Station	Frequency	AM/FM	Site	Type
3PNN	91.7 MHz	FM	Mt Dundas	ABC
3ABCRN	92.5 MHz	FM	Mt Dundas	ABC
3ABCFM	93.3 MHz	FM	Mt Dundas	ABC
3ABCRR	94.1 MHz	FM	Mt Dundas	ABC
3JJJ	94.9 MHz	FM	Mt Dundas	ABC

### C Warrnambool

Station	Frequency	AM/FM	Site	Type
3YB	882 KHz	AM		Commercial
3WL	1602 KHz	AM		ABC
3JJJ	89.7 MHz	FM	Tower Hill	ABC
3PNN	91.3 MHz	FM	Tower Hill	ABC
3ABCFM	92.1 MHz	FM	Tower Hill	ABC
3RPH	94.5 MHz	FM	Mt Warrnambool	Community
3YFM	95.3 MHz	FM	Mt Warrnambool	Commercial
	100.9 MHz	FM	Warrnambool	HPON
3ABCRN	101.7 MHz	FM	Tower Hill	ABC
3WAY	103.7 MHz	FM	Mt Warrnambool	Community



## D Portland

Station	Frequency	AM/FM	Site	Type
3HFM	93.7 MHz	FM	Mt Clay	Commercial
3SWR	96.9 MHz	FM	Mt Clay	ABC
3PNN	97.7 MHz	FM	Mt Clay	ABC
3ABCRN	98.5 MHz	FM	Mt Clay	ABC
3RPC	99.3 MHz	FM	Mt Clay	Community
	105.3 MHz	FM	Portland	HPON

## E Other

**Some Melbourne AM stations will also be receivable in the area. Horsham AM stations 3WV and 3WM will also be potentially usable.**