

# *Eastern Mt Lofty Ranges Sustainable Yield Region Regional Profile*

**ABS, ABARE & BRS  
2009**

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The Murray-Darling Basin Authority commissioned this report, amongst a number of consultancy reports, to examine a range of different aspects of the socio-economic implications of reducing current diversion limits. These studies were conducted at specific points in time during the development of the proposed Basin Plan and aimed to analyse the likely implications of a range of potential scenarios for reducing long-term average diversion limits in order to inform the MDBA on options for setting Sustainable Diversion Limits and other aspects of the proposed Basin Plan.

## Overview

## Eastern Mt Lofty Ranges Sustainable Yield Region

Eastern Mt Lofty Ranges is one of 18, CSIRO defined, Sustainable Yield Regions (SYRs) in the Murray-Darling Basin. The Eastern Mt Lofty Ranges SYR is in South Australia at the western end of the Basin, just to the east of the Adelaide metropolitan area. It contains the large urban centres of Mount Barker and Murray Bridge which together contain more than 40% of the region's resident population.

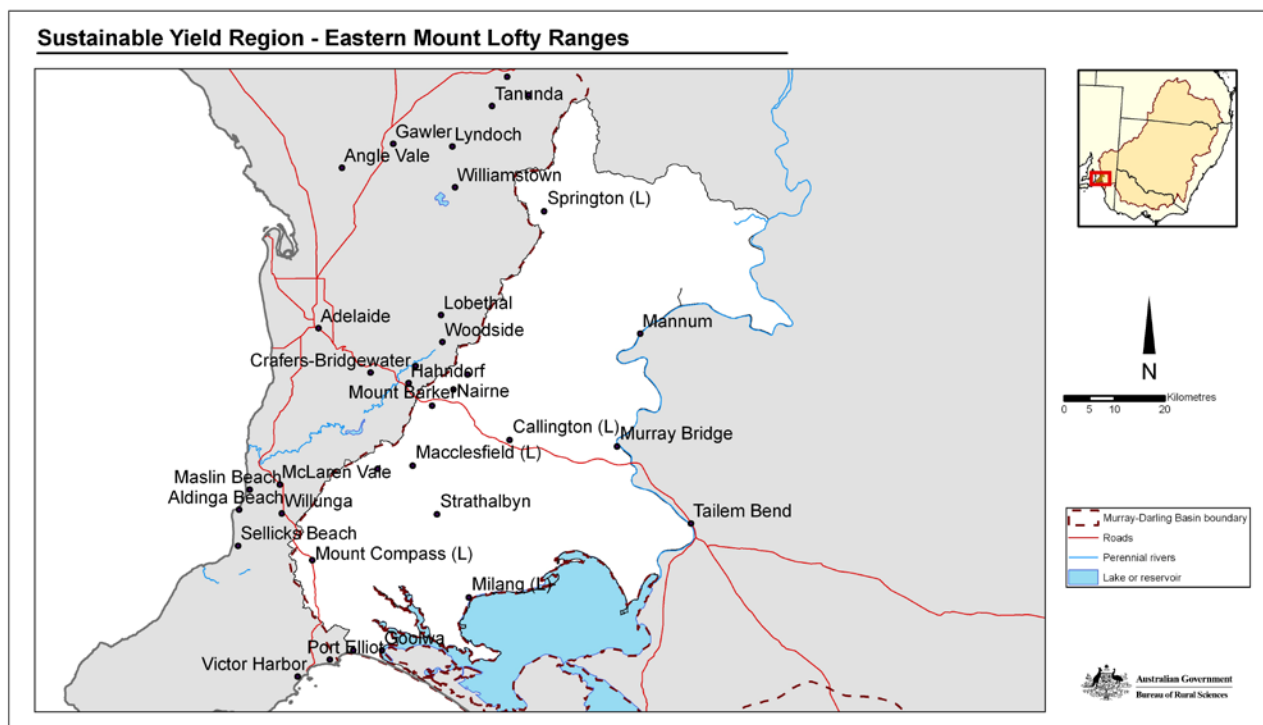
Selected population characteristics			
Eastern Mt Lofty Ranges	2001	2006	Change
	(no.)	(no.)	(%)
<b>Population</b>	53,589	61,532	14.8
Male	26,537	30,223	13.9
Female	27,052	31,309	15.7
Aged 0-14 years	12,036	12,712	5.6
Aged 15-24 years	5,932	7,177	21.0
Aged 25-64 years	28,223	32,213	14.1
Aged 65 years and over	7,398	9,430	27.5
<b>Indigenous population</b>	937	1,124	20.0
<b>Labour force participation (%)</b>	59.7	61.0	
<b>Unemployment rate (%)</b>	7.1	5.1	

Source: ABS Census of Population and Housing, 2001 and 2006

The region covers 468,721 hectares or 0.4% of the Murray-Darling Basin's land area, of which 84% was used for agriculture in 2006; the same as for the Murray-Darling Basin as a whole, according to the Bureau of Rural Sciences 2008.

With a total population of 61,532 in 2006, 3.1% of the Murray-Darling Basin population lived in the Eastern Mt Lofty Ranges SYR, according to the ABS Census of Population and Housing 2006.

Note: This profile was produced to allow meaningful comparisons between regional characteristics and populations and, between those populations over time. Extensive use was made of ABS agricultural and population censuses from 2006 to provide the level of geographic detail required at a common time point, and the 2001 population census to permit consistent comparisons over time.

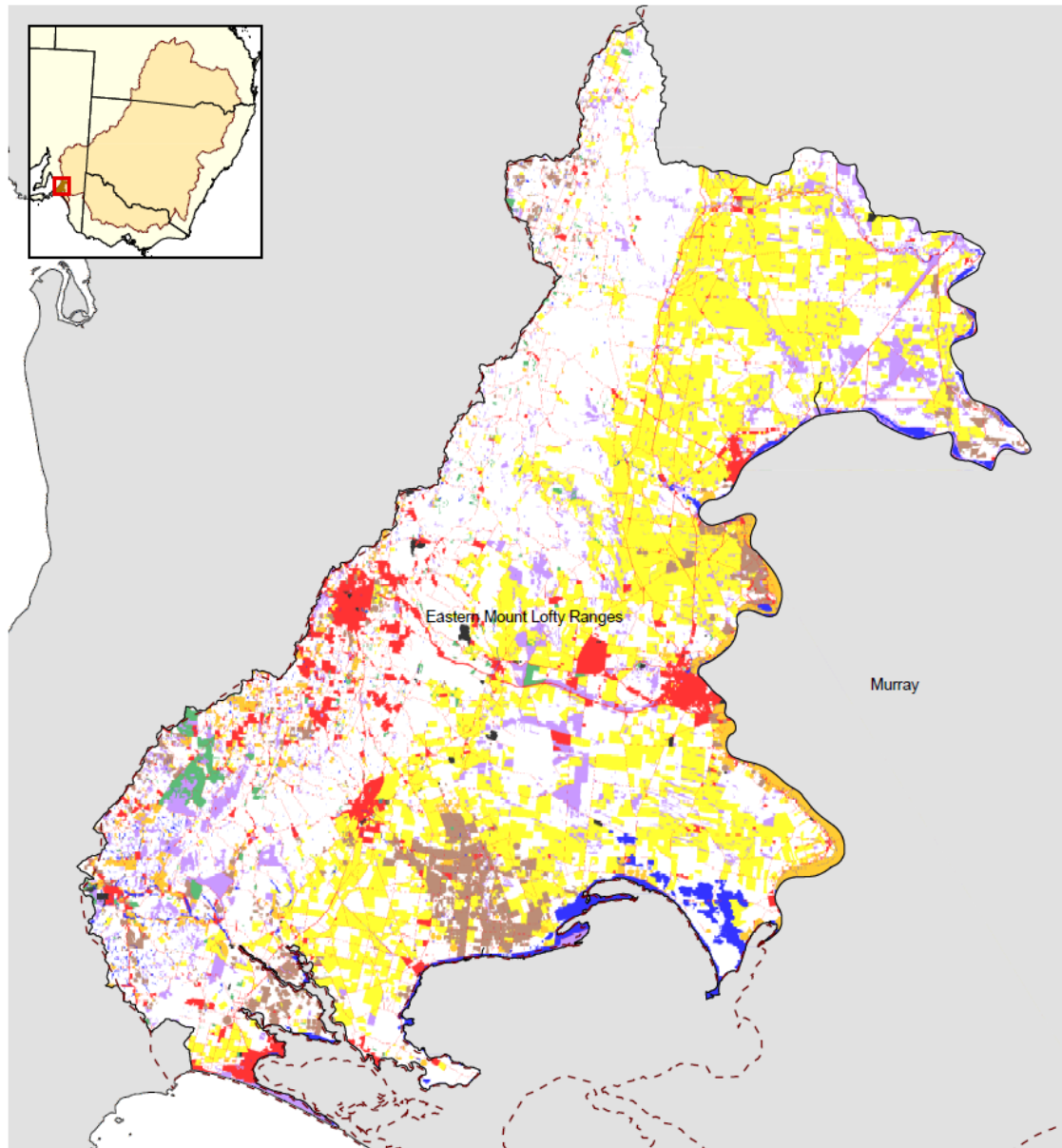


## Land Use

## Eastern Mt Lofty Ranges Sustainable Yield Region

The proportion of agricultural land used for irrigated agriculture was 6.0% for the Eastern Mount Lofty Ranges Sustainable Yield Region compared to 2.0% for the Murray-Darling Basin, according to the ABS Agricultural Census, 2005-06.

### Sustainable Yield Region - Eastern Mount Lofty Ranges Land use, 2008



Murray-Darling Basin boundary	Irrigated pastures
Conservation and natural environments	Irrigated cropping and horticulture
Grazing native or modified pastures	Intensive uses
Production and plantation forestry	Mining and waste
Dryland cropping and horticulture	Water

Map compiled by Bureau of Rural Sciences, July 2009

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Most current catchment scale land use map of Australia, as at April 2009, based on the ALUM (Australian Land Use and Management) Classification. The most current land use datasets (ranging from 1999 to 2008) collected as part of the Australian Collaborative Land Use and Management Program (ACLUMP), available as at April 2009, were used to create combined 50m raster dataset for Australia. NODATA voids filled with ABS meshblocks land use attributes with modifications based on TOPO-250K Series 3 built-up areas, the NFI 2007 forest data set and the NFI 2007 tenure dataset.

Datasets were provided by the New South Wales Department of Environment and Climate Change, the Northern Territory Department of Natural Resources, Environment, The Arts and Sport, the Queensland Department of Environment and Resource Management, the South Australian Department of Water, Land and Biodiversity Conservation, the Tasmanian Department of Primary Industries and Water, the Victorian Department of Primary Industries and the Western Australian Department of Agriculture and Food.

Projection: Albers Equal-Area Conic GDA94

## Regional urbanisation

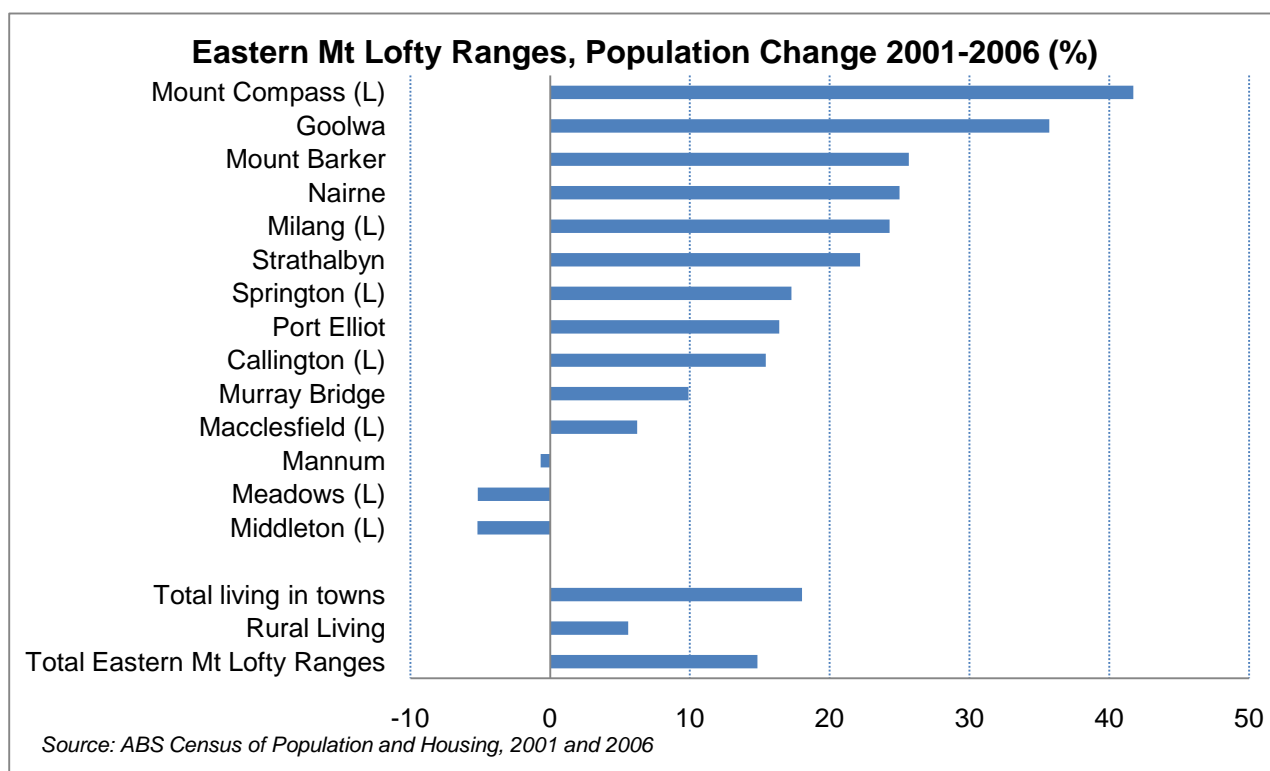
Across the Murray-Darling Basin most large urban centres (with more than 10,000 people) have shown population growth between 2001 and 2006 but remote areas and many smaller towns have shown population decline.

In 2006 the Eastern Mt Lofty Ranges had a total population of 61,532 people, and had grown by 14.8% since 2001, the highest growth rate recorded in the Murray-Darling Basin. The region contains the large urban centres of Murray Bridge and Mount Barker, and is classified as Inner Regional by ARIA<sup>1</sup>.

Murray Bridge had 14,049 residents in 2006 and had grown by 1,266 (or 9.9%) since 2001.

Most of the Eastern Mt Lofty Ranges SYR experienced strong growth between 2001 and 2006, largely due to the proximity of the Adelaide metropolitan area and increasing suburban spread in this major city.

Mt Barker had the largest population increase of 2,357 people (25.7%) and the total population exceeded 10,000 for the first time. Goolwa grew by 1,548 (35.7%) and both Strathalbyn and Nairne gained approximately 700 new residents each. Mount Compass recorded the fastest growth (41.7%) in the region.



1. ARIA - the Accessibility/Remoteness Index of Australia.

<b>Population of urban centres and localities (a): 2001 - 2006</b>			
<b>Eastern Mt Lofty Ranges</b>	<b>2001</b>	<b>2006</b>	<b>Change</b>
	(no.)	(no.)	(%)
Murray Bridge	12,783	14,049	9.9
Mount Barker	9,183	11,540	25.7
Goolwa	4,335	5,883	35.7
Strathalbyn	3,188	3,895	22.2
Nairne	2,776	3,470	25.0
Mannum	2,050	2,036	-0.7
Port Elliot	1,502	1,748	16.4
Macclesfield (L)	786	835	6.2
Middleton (L)	864	819	-5.2
Meadows (L)	794	753	-5.2
Mount Compass (L)	489	693	41.7
Milang (L)	412	512	24.3
Callington (L)	337	389	15.4
Springton (L)	284	333	17.3
<i>Total living in towns</i>	39,783	46,955	18.0
Rural Living (b)	13,806	14,577	5.6
<b>Total Eastern Mt Lofty Ranges</b>	53,589	61,532	14.8
<i>(a) Includes towns with a population greater than 200 in 2006</i>			
<i>(b) Rural living includes all persons living outside the urban centres or localities (L) shown in this table</i>			
<i>Source: ABS Census of Population and Housing, 2001 and 2006</i>			

## More jobs in Government, Construction, Health and Education.

Across the Murray-Darling Basin the largest employment increases between 2001 and 2006 were in Government (37%), Construction (27%), Health (21%), and Education (20%). There was a slight increase in Retail employment (2%) with more growth in larger urban centres. However, employment in Agriculture generally declined across the Basin (-12%) and Australia (-14%).

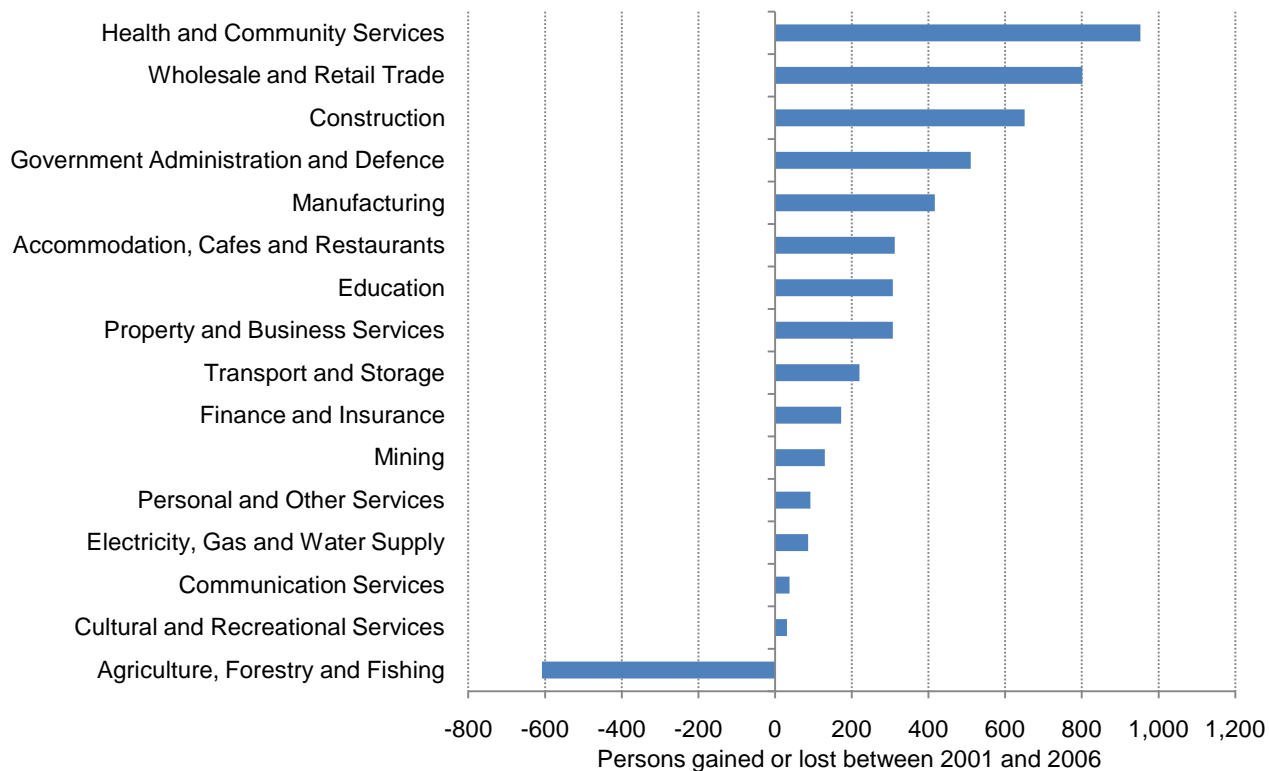
In Eastern Mt Lofty Ranges the major employing industries are Wholesale and Retail Trade and Manufacturing. The Agriculture, Forestry and Fishing industry is the fourth largest employer, with 2,363 employees in 2006. This was a 20.5% decline since 2001.

Health, Education and Government Administration services employed 6,038 people in Eastern Mt Lofty Ranges in 2006. Health and Community Services alone had 3,138 employees in 2006 making it the third largest employing industry in the SYR.

Wholesale and Retail Trade employed 5,165 people in Eastern Mt Lofty Ranges in 2006, having grown by 18.4% since 2001. Manufacturing grew by 13.5% over the period to 3,501 in 2006.

The number of Eastern Mt Lofty Ranges residents aged 15 years and over looking for work fell by 267, or 15.6%, between 2001 and 2006. The unemployment rate in 2006 was 5.1% compared with 5.0% for the Basin.

**Eastern Mt Lofty Ranges, Employment Changes, by Industry, 2001 - 2006**



Industry groupings are in accordance with the Australian and New Zealand Standard Classification of Industries, 1993

Source: ABS Census of Population and Housing, 2001 and 2006

Industry (a) of employed persons (b), 2001 - 2006				
Eastern Mt Lofty Ranges	2001	2006	Percent Change	Difference
	(no.)	(no.)	(%)	(no.)
Agriculture, Forestry and Fishing	2,971	2,363	-20.5	-608
Cultural and Recreational Services	441	472	7.0	31
Communication Services	299	337	12.7	38
Electricity, Gas and Water Supply	157	243	54.8	86
Personal and Other Services	942	1,034	9.8	92
Mining	106	236	122.6	130
Finance and Insurance	394	566	43.7	172
Transport and Storage	753	973	29.2	220
Property and Business Services	1,623	1,930	18.9	307
Education	1,379	1,686	22.3	307
Accommodation, Cafes and Restaurants	916	1,228	34.1	312
Manufacturing	3,084	3,501	13.5	417
Government Administration and Defence	704	1,214	72.4	510
Construction	1,472	2,123	44.2	651
Wholesale and Retail Trade	4,364	5,165	18.4	801
Health and Community Services	2,185	3,138	43.6	953
Non-Classifiable Economic Units	101	264	161.4	163
Total all industries	21,891	26,473	20.9	4,582
Not stated	330	358	8.5	28
<b>Total employed (incl. not stated)</b>	<b>22,221</b>	<b>26,831</b>	<b>20.7</b>	<b>4,610</b>
<b>Unemployed</b>	<b>1,710</b>	<b>1,443</b>	<b>-15.6</b>	<b>-267</b>
<b>Not in the labour force</b>	<b>16,183</b>	<b>18,065</b>	<b>11.6</b>	<b>1,882</b>
<b>Unemployment rate (%)</b>	<b>7.1</b>	<b>5.1</b>		
<i>n.a. - Not applicable</i>				
<i>(a) Industry groupings are in accordance with the Australian and New Zealand Standard Classification of Industries, 1993</i>				
<i>(b) Applicable to persons 15 years and over, and based on place of usual residence</i>				
<i>Source: ABS Census of Population and Housing, 2001 and 2006</i>				

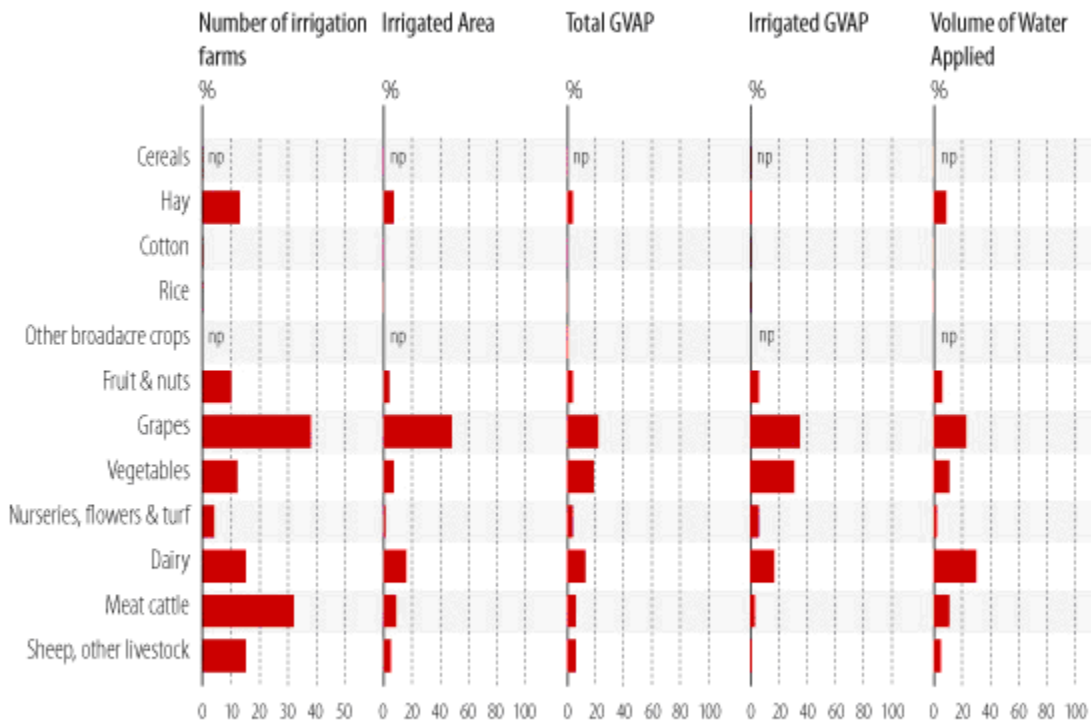
## Irrigation in decline but agricultural production is increasing

The amount of land used for irrigated agricultural production declined by 9.3% across the Basin, from 1.82 million hectares in 2000-01 to 1.65 million hectares in 2005-06. However, the gross value of agricultural production (GVAP) increased by 7.1% from \$14,001 million to \$14,991 million. The gross value of irrigated agricultural production (irrigated GVAP) was \$5,522 million in 2005-06 rising 8.6% from \$5,085 million in 2000-01.

In Eastern Mount Lofty Ranges grapes were produced by 38% of irrigation farms. Grape production was also a large contributor to total irrigated GVAP accounting for 35%, thus making grape production the major irrigated activity. Reflecting this, grape production used 48% of irrigated area and was also the major contributor to total GVAP accounting for 22%.

Other major agricultural activities included vegetable production which accounted for 31% of irrigated GVAP and 19% of total GVAP. Vegetables were produced by 12% of irrigation farms. Dairy production is another major activity using 30% of water in the area and was undertaken by 15% of irrigation farms.

Selected agricultural data, by commodity shares, Eastern Mount Lofty Ranges



Source: ABS, Agricultural Census, 2005-06

Note: Total does not equal the sum as many farms irrigate more than one commodity.

<b>Agriculture Industry, Selected characteristics, 2005-06</b>					
<b>Eastern Mt Lofty Ranges</b>	<b>Agricultural businesses irrigating</b>	<b>Irrigated Area</b>	<b>Total GVAP</b>	<b>Irrigated GVAP</b>	<b>Volume of Water Applied</b>
	No.	'000 ha	(\$m)	(\$m)	ML
Cereals for grain and seed	np	np	np	np	np
Total hay production	89	1	12	1	6,695
Cotton	0	0	0	0	0
Rice	0	0	0	0	0
Other broadacre crops	np	np	3	np	np
Fruit and nuts	68	1	11	10	4,576
Grapes	261	10	65	59	16,829
Vegetables for human consumption and seed	83	2	<sup>^</sup> 56	<sup>^</sup> 53	8,035
Nurseries, cut flowers and cultivated turf	<sup>^</sup> 30	0	<sup>^</sup> 11	<sup>^</sup> 10	<sup>^</sup> 1,676
Dairy production	101	3	39	29	22,014
Production from meat cattle	220	2	18	5	7,902
Production from sheep and other livestock	106	1	17	1	<sup>^</sup> 3,920
<b>Total - All Commodity Groups</b>	<b>691</b>	<b>20</b>	<b>300</b>	<b>168</b>	<b>72,968</b>
<i>np - not available for publication</i>					
<i><sup>^</sup> Estimate has a relative standard error of 10% to less than 25% and should be used with caution</i>					
<i>* Estimate has a relative standard error of 25% to 50% and should be used with caution</i>					
<i>** Estimate has a relative standard error of more than 50% and is considered too unreliable for general use</i>					
<i>Source: ABS Agricultural Census, 2005-06</i>					

### Similar numbers of low income earners in regional areas but more home owners

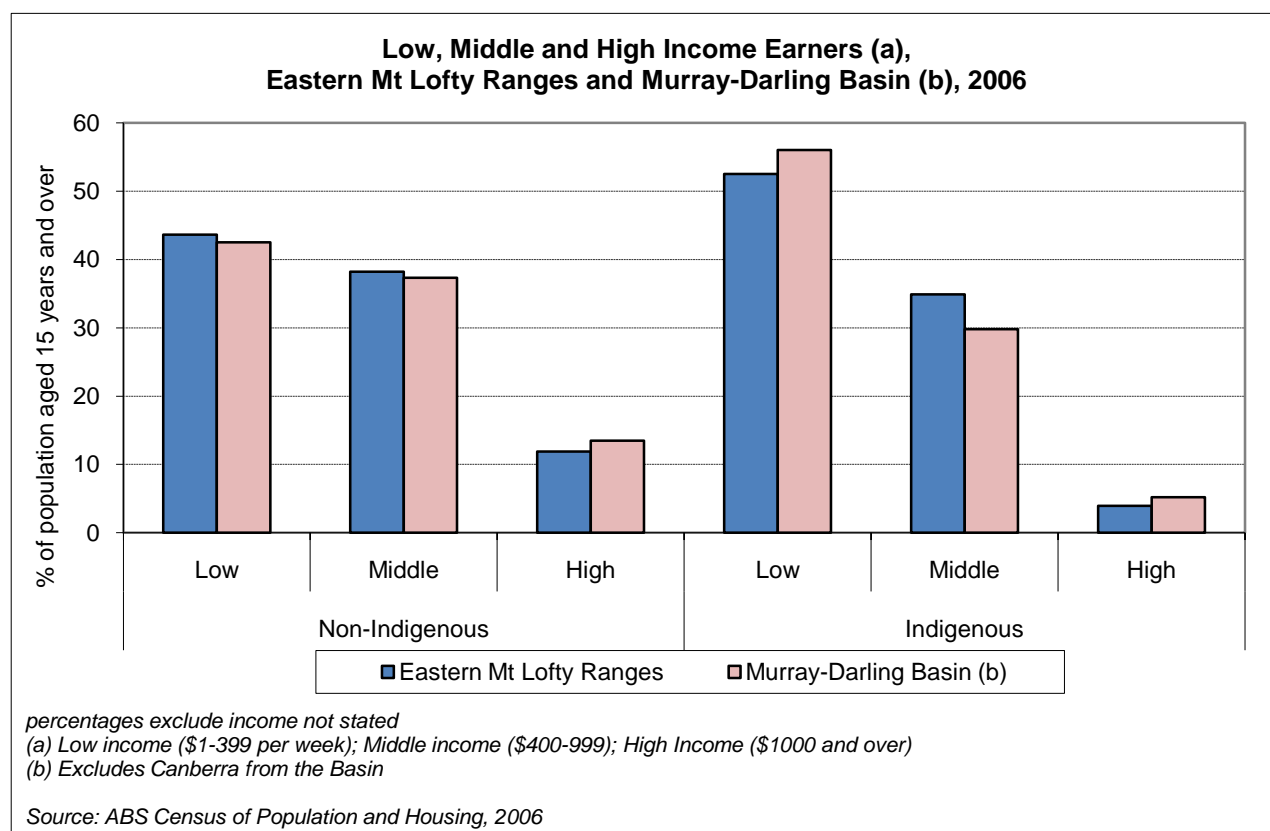
For the non-indigenous population, 42% of individuals in the Basin (excluding Canberra) earned less than \$400 per week in 2006. This was similar to the rest of Australia (excluding major capital cities) for which 41% were low income earners. Much higher proportions of Indigenous Australians were low income earners (56% in the Basin, and 60% in the rest of Australia).

Home ownership was generally a little higher in regional and remote areas of Australia compared to capital cities. Across the Basin 38% of homes were fully owned in 2006, compared to 35% for Australia.

In Eastern Mt Lofty Ranges, 35% of homes were fully owned in 2006, slightly lower than for the Basin as a whole (38%).

The 2006 median household income of \$774 per week compared to the value for the Basin (excluding Canberra) of \$810, and the whole Basin of \$915.

The distribution of low (\$1-\$399 per week), middle (\$400-\$999 per week) and high income (\$1000 or more per week) earners for Eastern Mt Lofty Ranges is close to that for the Basin excluding Canberra, though in the Indigenous population there is a lower proportion of low income earners (52.5% compared to 56.0%) and a higher proportion of middle income earners (34.9% compared to 29.8%).



<b>Low, middle and high income earners (a) by Indigenous status, 2006</b>				
	<b>Eastern Mt Lofty Ranges</b>		<b>Murray-Darling Basin (b)</b>	
	(no.)	(%)	(no.)	(%)
<b>Non-Indigenous</b>				
Low	19,209	43.6	486,013	42.5
Middle	16,825	38.2	426,539	37.3
High	5,238	11.9	153,850	13.5
Not stated	1,882	n.a.	63,612	n.a.
<b>Indigenous</b>				
Low	292	52.5	18,847	56.0
Middle	194	34.9	10,044	29.8
High	22	4.0	1,740	5.2
Not stated	113	n.a.	5,089	n.a.
<b>Total</b>				
Low	19,793	43.9	513,548	43.1
Middle	17,170	38.1	440,706	37.0
High	5,293	11.7	156,603	13.1
Not stated	3,789	n.a.	121,702	n.a.
<i>Persons aged 15 years and over</i>				
<i>Percentages are calculated with 'Not Stated' removed</i>				
<i>n.a. Not applicable.</i>				
<i>(a) Low income (\$1-399 per week); Middle income (\$400-999); High Income (\$1000 or over)</i>				
<i>(b) Excludes Canberra from the Basin</i>				
<i>Source: ABS Census of Population and Housing, 2006</i>				

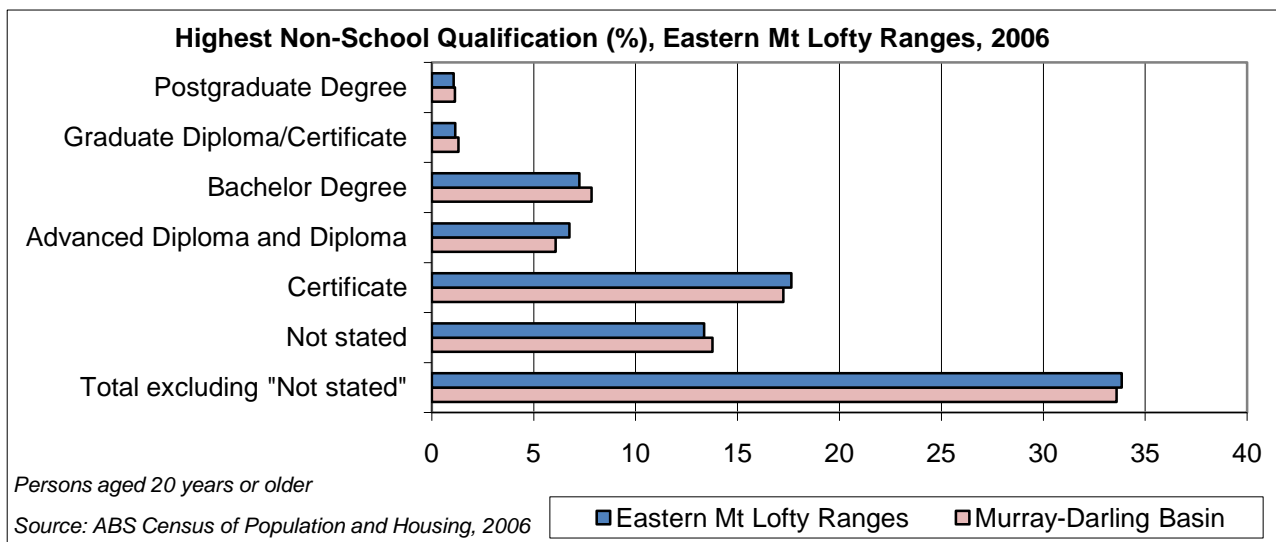
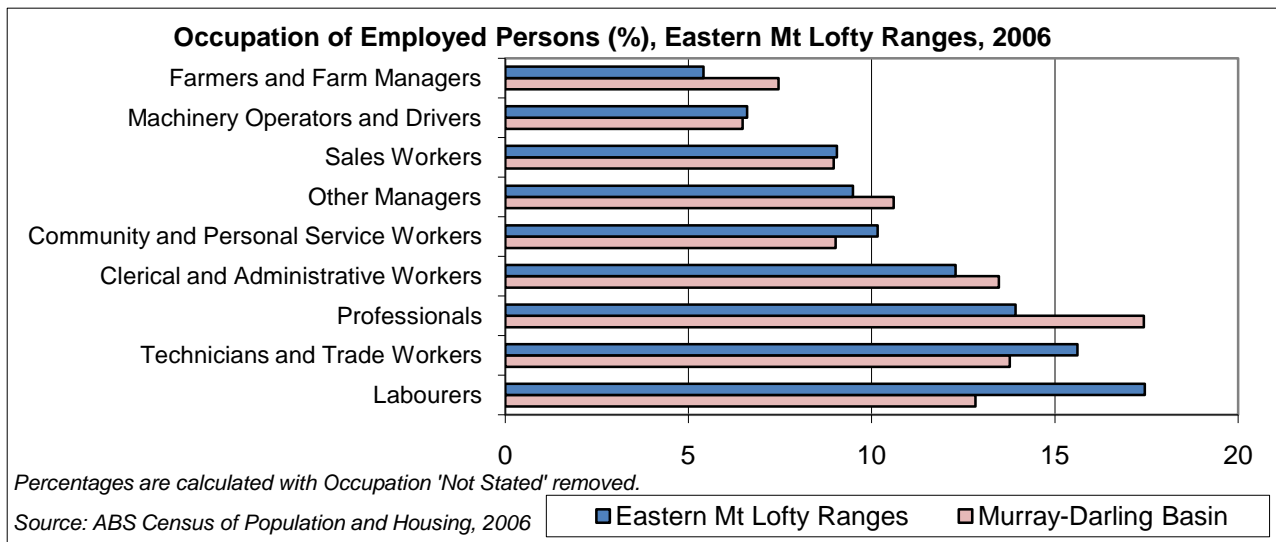
**Fewer skilled occupations and qualified persons in regional areas**

Across all major cities of Australia professionals make up the largest occupation group, comprising over 20% of employed persons in 2006. In the Basin, there were progressively fewer Professionals in the inner regional (15%), outer regional (12%), remote (11%) and very remote areas (9%). There are also progressively fewer Technical and trades workers in more remote areas of the Basin.

Excluding Canberra, 34% of persons aged 20 years and over in the Basin had attained non-school qualifications, but this was lower than for Canberra (52%) and the rest of Australia (41%).

The largest occupation group in Eastern Mt Lofty Ranges was Labourers, comprising 17% of employed persons in 2006, or 4,616 labourers. The next largest occupation group in Eastern Mt Lofty Ranges was Technicians and trade workers, comprising 16% of employed persons.

In Eastern Mt Lofty Ranges, a similar number of people had attained non-school qualifications compared to the Basin excluding Canberra (both 34%).



<b>Occupation of employed persons, 2006</b>		
<b>Eastern Mt Lofty Ranges</b>	<b>(no.)</b>	<b>(%)</b>
Farmers and Farm Managers	1,432	5.4
Machinery Operators And Drivers	1,747	6.6
Sales Workers	2,395	9.1
Other managers	2,511	9.5
Community and Personal Service Workers	2,689	10.2
Clerical and Administrative Workers	3,251	12.3
Professionals	3,684	13.9
Technicians and Trade Workers	4,130	15.6
Labourers	4,616	17.4
<b>Total</b>	<b>26,455</b>	<b>100.0</b>
<i>Percentages are calculated with Occupation 'Not Stated' removed</i>		
<i>Source: ABS Census of Population and Housing, 2006</i>		

<b>Highest non-school qualification, 2006</b>		
<b>Eastern Mt Lofty Ranges</b>	<b>(no.)</b>	<b>(%)</b>
Postgraduate Degree	480	1.1
Graduate Diploma\Certificate	516	1.2
Bachelor Degree	3,239	7.2
Advanced Diploma and Diploma	3,023	6.8
Certificate	7,901	17.6
<i>Total non-school qualification (excluding not stated)</i>	<i>15,159</i>	<i>33.8</i>
Not stated	5,983	13.4
No qualifications	23,641	52.8
<b>Total (including not stated)</b>	<b>44,783</b>	<b>100.0</b>
<i>Persons aged 20 years or older</i>		
<i>Source: ABS Census of Population and Housing, 2006</i>		