



The Murrumbidgee and Murray Regions: An Economic Profile

by John Wilkinson and Daniel Montoya

1 INTRODUCTION

The Murrumbidgee and Murray regions are one of Australia's recognised food bowls, growing and processing a significant proportion of all fruit and vegetables in NSW. For example, in 2005-06 the Murrumbidgee and Murray regions produced 66% and 28% respectively of citrus fruit in the State.¹

Over the years these regions have faced significant challenges. Recently, a major part of the debate concerning the Murrumbidgee and Murray regions has focused on the potential economic, social and environmental implications of the Murray-Darling Basin Plan. 2011 saw the publication of the Murray-Darling Basin Authority's (MDBA) [draft plan](#). While the evidence to date suggests that, in the long-run, the overall social, economic and environmental benefits of the Basin Plan will outweigh the costs, it is the case that some towns in the Basin may face more significant adjustment. These include smaller towns in the NSW Murray catchment and the central and western parts of the Murrumbidgee catchment.² Ironically perhaps, after experiencing a severe drought during 2003-2008, the Riverina is presently confronted by major flooding.

Previous "economic profiles" published by the Research Service have been focussed on single statistical regions (the Hunter and the Illawarra). In this case the regions of the Murrumbidgee and Murray are treated as a combined entity. This follows the approach taken in the Labour Market Information Portal (LMIP) of the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR), which contains the most recent figures on employment by occupation.³ That approach, in turn, is based on a decision of the Australian Bureau of Statistics to treat the Murrumbidgee and the Murray as a single entity for labour force data purposes.⁴

Notwithstanding its economic significance to the Murray region, it is also the case that ABS statistical data is not amenable to incorporating the border town of Wodonga into an economic profile of the region.

2 THE MURRUMBIDGEE AND MURRAY REGIONS – URBAN AND RURAL PROFILES

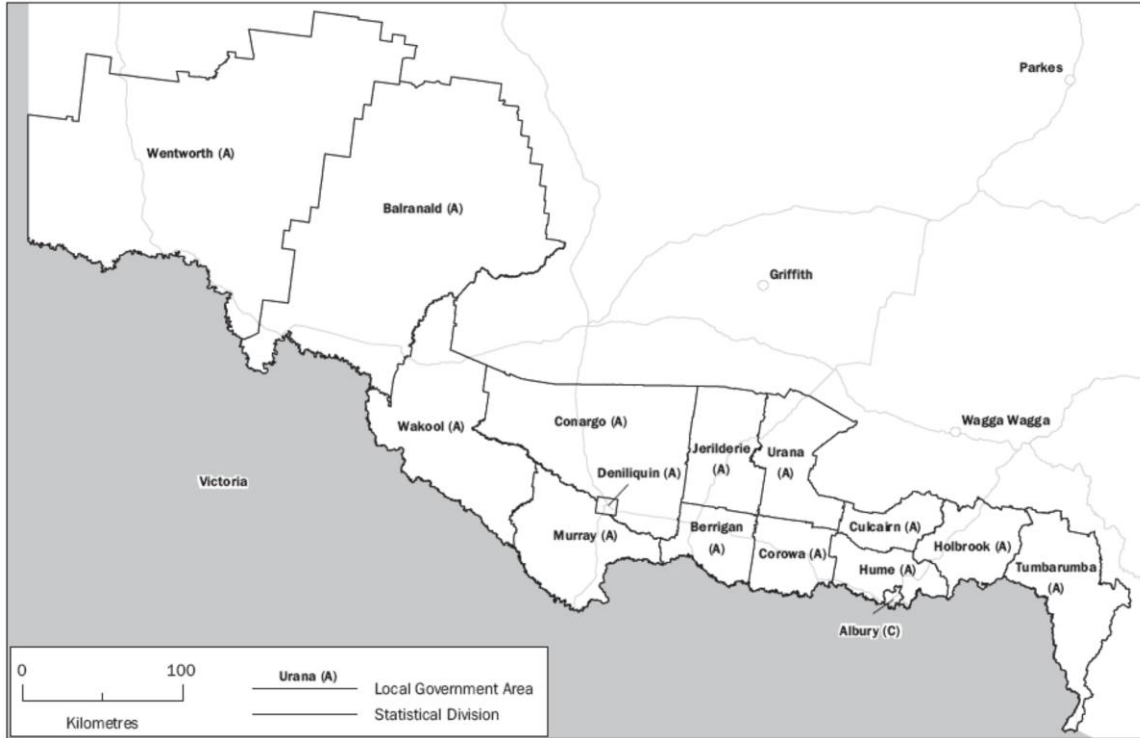
2.1 Murrumbidgee and Murray Regions: Urban LGAs

Out of the 13 LGAs that form the Murrumbidgee region, and the 12

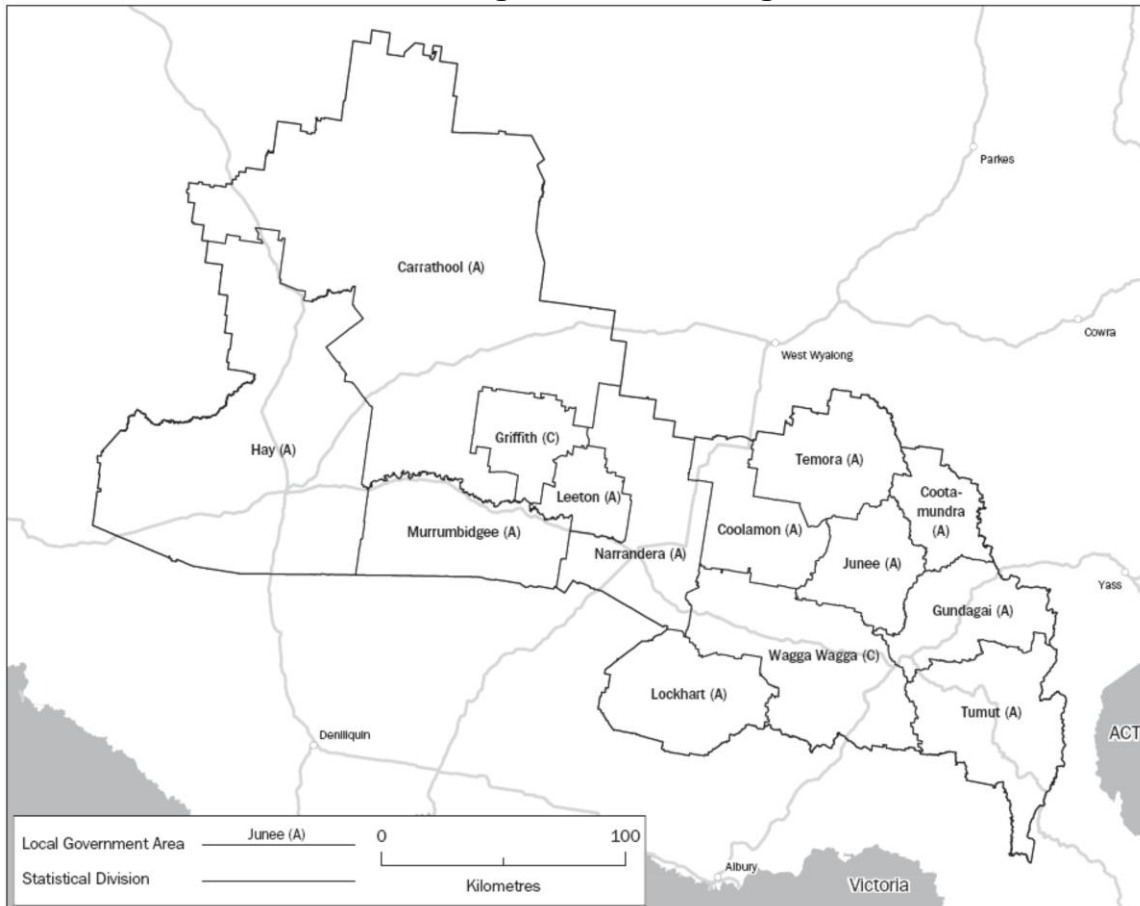
LGAs that form the Murray region, only one LGA in each region is urban: Wagga Wagga in the Murrumbidgee and Albury in the Murray. In 2010, out

of a regional population of 148,154, Wagga Wagga had a population of 63,500 (42.9%).

Murray Statistical Region



Murrumbidgee Statistical Region



During the same year, out of a regional population of 115,537, Albury had a population of 51,112 (44.2%). Their populations, as a percentage of a combined Murrumbidgee-Murray population, are as follows:

Wagga Wagga and Albury: Populations (as % of Combined Murrumbidgee-Murray Regions) 2010⁵

Wagga Wagga	63,500 (24.1%)
Albury	51,112 (19.4%)

2.2 Murrumbidgee and Murray Regions: Rural LGAs

The rural LGAs in the Murrumbidgee and Murray regions, and their populations as a percentage of their respective regions, are set out below:

Rural LGAs in the Murrumbidgee Region: Population (2010)⁶

	Population	% of Region
Griffith	25,879	17.5%
Leeton	11,929	8.1%
Cootamundra	7,729	5.2%
Junee	6,298	4.3%
Narrandera	6,280	4.2%
Temora	6,216	4.2%
Coolamon	4,233	2.9%
Gundagai	3,902	2.6%
Hay	3,349	2.3%
Lockhart	3,318	2.2%
Carrathool	2,964	2%
Murrumbidgee	2,557	1.7%

Rural LGAs in the Murray Region: Population (2010)⁷

	Population	% of Region
Corowa	11,773	10.2%
Gr. Hume	10,447	9%
Berrigan	8,644	7.5%
Deniliquin	7,633	6.6%
Murray	7,319	6.3%
Wentworth	7,120	6.2%
Wakool	4,389	3.8%
Balranald	2,476	2.2%
Conargo	1,689	1.5%
Jerilderie	1,674	1.4%
Urana	1,261	1.1%

2.3 Geographical and Commercial Features: Murrumbidgee LGAs

The geographical and commercial features of the region's 13 LGAs are listed, in descending population order, as follows:

Wagga Wagga. Wagga Wagga LGA covers an area of 4,825 square kilometres.⁸ It is the principal commercial centre of the Murrumbidgee region and, in 2009, hosted more than 4,900 businesses. Major employers in Wagga Wagga include Cargill, Charles Sturt University, Heinz, Royal Australian Air Force (Forest Hill Air Training Centre), Royal Australian Army (Kapooka Training Centre), Wagga Base Hospital and Wagga City Council.⁹

Griffith. Griffith spans an area of 1,640 square kilometres.¹⁰ In 2007 there were 3,138 businesses.¹¹ Major employers include Baiada, Casella, De Bortoli, McWilliams and Nugan.¹²

Leeton. Leeton occupies an area of 1,167 square kilometres.¹³ Major employers include Baiada, Kirin (Berri) and Itoham (Rockdale Abattoir).¹⁴

Cootamundra. Cootamundra spans an area of 1,523 square kilometres.¹⁵ The largest employer (with 200 staff) is the G.M. Scott Abattoir.

Junee. Junee covers an area of 2,031 square kilometres.¹⁶ Significant employers include Junee Beef and Charles Sturt University.

Narrandera. Narrandera occupies an area of 4,117 square kilometres.¹⁷ Significant employers include Coles, Essential Energy, Grants Cypress Sawmilling, Manildra Group and Narrandera Shire Council.¹⁸

Temora. Temora spans an area of 2,802 square kilometres.¹⁹ Principal employers include the BFB-Cargill Grainstores, the Cargill feedlot and Moses and Sons wool traders.

Coolamon. Coolamon covers an area of 2,432 square kilometres.²⁰ The largest employer is the Coolamon Shire Council.

Gundagai. Gundagai occupies an area of 2,458 square kilometres.²¹ The biggest employer is Gundagai Meat Processors.

Hay. Hay spans an area of 11,329 square kilometres.²² The larger employers in the shire are: M.P. Barich Shearing Services; A.J. Morrison Shearing Services; E.M. Schiller Shearing Services; and Uardry Station.²³

Lockhart. Lockhart covers an area of 2,895 square kilometres.²⁴ The largest employer is the Lockhart shire Council.

Carrathool. Carrathool occupies an area of 18,939 square kilometres.²⁵

Murrumbidgee. Murrumbidgee is the smallest LGA in terms of population and spans an area of 3,507 square kilometres.²⁶ Significant employers include Murrumbidgee Irrigation, SunRice, Baiada and the Murrumbidgee Shire Council.

2.4 Geographical and Commercial Features: Murray LGAs

The geographical and commercial features of the region's 12 LGAs are listed, in descending order of population, as follows:

Albury. Albury LGA covers an area of 306 square kilometres.²⁷ Albury is the principal commercial centre of the Murray region. It hosts more than 4,000 businesses. In 2008-09 the

combined regional product of Albury, combined with its Victorian twin city Wodonga, amounted to \$4.8 billion.²⁸

For the purposes of this e-brief it is enough to acknowledge the interdependence of the two cities, in terms of employment in industry and commerce, the provision of tertiary educational institutions and in the sphere of health, with the establishment of Albury Wodonga Health in 2009.

Despite the proposed merger of the cities, suggested by Bob Carr and Steve Bracks in 2001,²⁹ Albury and Wodonga remain for the most part administratively distinct, with the 2009 [Draft Murray Regional Strategy](#) encapsulating this complex cross-border relationship in this way:

In many respects, the 'twin towns' on the Murray River often have a high degree of interdependence in terms of services, employment, transport links and retail catchments. As separate jurisdictions, however, the state and local government service provision and planning systems are different.³⁰

Corowa. Corowa spans an area of 2,329 square kilometres.³¹ The principal towns in the LGA are Corowa, Mulwala and Howlong. Major employers in the LGA are the Corowa-based Rivalea Piggery (Australia's biggest pork producer, employing 650 people) and the Mulwala-based munitions producer Thales (employing 420 people).³²

Greater Hume. Greater Hume occupies an area of 5,749 square kilometres.³³ Holbrook is the administrative centre. Other sizeable towns are Culcairn, Henty, Holbrook, Jindera and Walla Walla. Significant employers include Kotzur Engineering,

Geelong Leather and the Greater Hume Shire Council.

Berrigan. Berrigan spans an area of 2,066 square kilometres.³⁴ Berrigan is the administrative centre of the LGA. The shire council is a major employer, as is Finley Regional Care.

Deniliquin. Deniliquin, which covers an area of 143 square kilometres,³⁵ is the administrative centre of the LGA. Significant employers include SunRice, Deniliquin Hospital and Deniliquin Council.

Murray. Murray occupies an area of 4,344 square kilometres.³⁶ Mathoura is the administrative centre of the LGA (although Moama is the biggest town). Significant employers include Byfords (steel products manufacturing), Murray Shire Council, Echuca-Moama RSL, Moama Bowling Club and the Rich River Golf Club.

Wentworth. Wentworth, which spans an area of 26,268 square kilometres,³⁷ is the administrative centre of the LGA. Sizeable employers include Wentworth Shire Council, Bemax (mineral sands), Constellation Wines and Wentworth Services Club.

Wakool. Wakool covers an area of 7,521 square kilometres.³⁸ Moulamein is the administrative centre of the LGA.

Balranald. Balranald occupies an area of 21,699 square kilometres.³⁹ Balranald is the administrative centre of the LGA.

Conargo. Conargo spans an area of 8,738 square kilometres.⁴⁰ Deniliquin hosts the administrative centre of the Conargo LGA. The council is a significant employer.

Jerilderie. Jerilderie covers an area of 3,372 square kilometres.⁴¹ Jerilderie is

the administrative centre of the LGA. The district hospital and the council are major employers.

Urana. Urana, which occupies an area of 3,357 square kilometres,⁴² is the administrative centre of the LGA. As the Shire Council states, Urana has "a narrow industry base...[through a] concentration of industry/employment in the agriculture and transport sectors...".⁴³

3 ECONOMIC HISTORY OF THE MURRUMBIDGEE AND MURRAY REGIONS

3.1 Cattle and Sheep in the 19th Century

The initial focus of the first wave of European arrivals in the Murray region was on cattle production. This intensified during the 1850s Victorian gold rush, with an emphasis on producing beef for the Melbourne market. The NSW Heritage Office noted that, "in the entire Murrumbidgee pastoral district (including the Murray) sheep declined in number by about one-third between 1850 and 1859, while cattle increased two and a half fold to 323,000."⁴⁴

From the end of the 1850s, with the emergence of the wool carrying riverboat trade, the emphasis in production turned towards sheep. As the Heritage Office remarked, in the 1860s,

huge tracts of country away from the rivers...were opened up...when interest throughout New South Wales...turned away from cattle...From then on, the sheep is the dominant factor...⁴⁵

It was during the nineteenth century that John Dunmore Lang, the Scottish clergyman and immigration advocate,

coined the term "Riverina" (meaning "between the two rivers")⁴⁶ for the area around the Murrumbidgee and Murray regions.⁴⁷

3.2 Diversified Primary Production and the Growth of Secondary Production in the 20th century

During the twentieth century and into the twenty-first century, sheep and cattle remained important to the Murrumbidgee and Murray regions. In 2006-07, for instance, there were 4½ million sheep, and 525,000 beef cattle, on properties across the combined regions.⁴⁸

However, over the same time period primary production has also diversified and secondary production has emerged in towns such as Wagga and Albury.

In the opening years of the twentieth century, the Wade NSW Government (1907-10) authorised the building of a diversion weir on the Murrumbidgee River north of Narrandera. Just above the weir, a main canal was commenced complete with a number of branch canals. In 1910 the Wade Government resumed 1,668,000 acres of land, downstream from Narrandera, to inaugurate irrigated agriculture.⁴⁹

Two years later, the succeeding McGowen Government (1910-13) placed control of the irrigation project in the hands of the newly established Water Conservation and Irrigation Commission (WCIC). In 1913 the WCIC inaugurated the completely artificial creation of Leeton (named after the Minister for Works in the Carruthers Government of 1904-07) and Griffith (named after the Minister for Public Works in the McGowen Government). A year later, the WCIC built a cannery in Leeton to process for the British market the fruit that was

intended to be grown on the irrigated allotments. By the late 1930s the cannery, trading under the name "Letona", was employing between 150 and 200 full-time employees and around 850 during the peak canning season. In March 1939, the cannery established a British Empire processing record of 350,000 cans (filled with peaches) in a single day.⁵⁰

Grape growing and wine making began just before the end of the First World War, when John McWilliam established his Hanwood vineyard near Griffith.⁵¹ Today 80% of NSW wine production takes place in the Riverina.⁵² Griffith, in the Murrumbidgee, is now the largest individual wine producing region in Australia, processing over 400,000 tonnes of grapes annually.⁵³ Grape, and wine, production have since expanded substantially in the Murray Region, as recently described by Murray Valley Winegrowers Incorporated:

The 2 [NSW and Victorian] wine regions that [jointly] comprise the Murray Valley zone – Murray-Darling and Swan Hill – are the second largest wine grape producing zone in Australia...[producing] a total of 328,000 tonnes in 2010...NSW growers account for approximately a third of the vineyard area...Murray Valley (NSW)...[also has] 2 of the 3 largest wineries in the Murray-Darling and Swan Hill wine regions located at Buronga in NSW – the Australian Vintage Ltd Buronga Hill wine and Constellation Wines Australia's Stanley winery, ranked as the 1st and 3rd largest regional wineries respectively...The Australian Vintage Buronga Hill winery also contract processes large volumes of fruit for Orlando Wines and McPherson Wines (totalling approximately 53,000 tonnes in 2009) – making it the second largest

winery in NSW behind Casella Wines [near Griffith].⁵⁴

Rice growing was launched in 1920 following the visit of John Brady (the manager of the Leeton Cannery) to USA and his return with varieties of rice specially developed for production in California. Several Murrumbidgee irrigation farmers decided to attempt rice growing and, in 1925-1926, 2,000 acres were sown, yielding 1,500 tons of rice.⁵⁵ During the late 1930s and late 1940s, the completion of the Hume Dam (1939) and the commencement of the Snowy Mountains Scheme in 1949, which enabled the diversion of additional water into both the Murrumbidgee and Murray Rivers, facilitated the establishment of Irrigation Areas for further rice growing, notably Tullakool in the Murray Region (1949) and Coleambally in the Murrumbidgee Region (1958-1970).⁵⁶

Meanwhile secondary industries, often based on the processing of farm products, expanded in Wagga Wagga and Albury. In Wagga Wagga the Murrumbidgee Co-operative Milling Company (one of the town's largest employers) produced between 20,000 to 22,000 tons of flour annually.⁵⁷ In Albury in 1925 a group of NSW woolgrowers established Amalgamated Textiles (later Macquarie Textiles).⁵⁸

3.3 Government Assistance for the Murray and Murrumbidgee Regions and the Expansion of Secondary Industry

There has been an extensive history of government assistance for and investment in the two Riverina regions.

During the Second World War, Wagga Wagga benefited from decisions made by the federal Menzies and Curtin

Governments to set up military bases just outside the town. In 1940 the Menzies Government established an RAAF base at Forest Hill and, two years later, the Curtin Government set up an army base at Kapooka.⁵⁹ In 1943, Curtin authorised the establishment of an explosives factory at Mulwala.⁶⁰

In the mid-1960s the Askin NSW Coalition Government obtained passage of the *State Development and Country Industries Assistance Act 1966*, under which the State government could provide loans to businesses to relocate outside of Sydney (conditional on local governments contributing to land and building costs). Under the Country Industries Assistance Fund (CIAF) Borg-Warner was assisted to relocate to Albury between 1969 and 1970.⁶¹

In the early 1970s, Gough Whitlam's ALP federal Government (together with the Askin Government and Rupert Hamer's Victorian Government) announced that Albury and its Victorian twin city Wodonga would jointly be designated as a growth centre, by means of the establishment of a jointly-funded Albury-Wodonga Development Corporation. Under the scheme, the federal government would provide loans for land acquisition and land development. Askin believed that the population of Albury-Wodonga could reach 250,000 by the year 2000.⁶²

In the meantime, as Britain was about to enter the EEC, William McMahon's federal government obtained passage of the *States Grants (Fruit Growing Reconstruction) Act 1972* under which, according to the Industries Assistance Commission (IAC), "Eligible canning fruit growers received a loan of up to \$500 per acre (\$1,236 per hectare) to

remove all or some of the trees". Four years later the Fraser Government provided more generous assistance, amending the Act to provide (according to the IAC) that as long as the grower did not "replant the cleared area with fruit trees in a specified period, the loan is converted into a grant".⁶³ Notwithstanding some reduction in fruit growing in the Riverina (with the Leeton cannery finally closing in 1994),⁶⁴ in 2006 the Murray and Murrumbidgee regions produced 90% of NSW citrus products.⁶⁵

Rice production expanded from the 1950s onwards, with the Murray region producing 470,508 tonnes in 2006, the Murrumbidgee Region 386,238 tonnes.⁶⁶ In 2006, three years after the onset of drought, the Murrumbidgee was for the first time granted Exceptional Circumstances (EC) relief. In 2009, under the provisions of the EC program, the NSW Rural Assistance Authority approved 850 applications for interest rate subsidies.⁶⁷

Just over twenty years after the launch of the Albury-Wodonga Growth Centre scheme, the Keating Government announced in 1995 that it would wind it down, a process completed by Howard Government legislation in 1999. By then the population of the twin towns had only reached 78,000 (from 55,800 in 1971).⁶⁸

Despite the rise and fall in the fortunes of the growth centre, companies continued to set up in Albury. Australian Newsprint Mills (ANM) established a mill there in 1981 (which was taken over by Norske Skog in 2000). Kimberley-Clark began operations in Albury five years later. In 1987 the Hawke Government announced that 500 Australian

Taxation Office staff would be transferred to a new office in Albury.⁶⁹

Wagga's industry expanded, partly through assistance from the CIAF. In 1980, for example, the French company Prouvost established the Riverina Wool Combing plant. The then Wran Government provided a loan, from the CIAF, of \$2.3 million.⁷⁰ New companies also moved into Wagga by taking over previously established concerns. Thus in 1987, Goodman Fielder took over the plant formerly operated by the Murrumbidgee Co-operative Milling Company (which itself had gone into receivership in 1978).⁷¹ Cargill set up operations in Wagga Wagga in 1991, through acquiring the Adelaide Steamship Company's Metro Meats (which itself had earlier acquired the successor to the defunct Wagga Wagga City Council abattoirs). By the late 1990s, Cargill had become the largest employer in Wagga Wagga. Heinz set up operations in Wagga Wagga in 1997, through acquiring the successor to the previously defunct James Barnes Foods.⁷²

At Mulwala, the explosives factory was transferred in 1989 by the Hawke Government from the Office of Defence Industries to the newly established Australian Defence Industries (ADI) Pty Ltd. In 2002 the Howard Government sold ADI to a consortium of Transfield and Thales. Four years later, Thales bought out Transfield's share of the operation.⁷³

Government initiatives were also responsible for the expansion of education in the two regions. In 1947 the McGirr State Government opened a teachers' college at Wagga Wagga. Twenty-four years later, the Askin Government transformed the teachers' college into the Riverina College of

Advance Education. By this time, successive NSW State governments had established around 13 technical colleges in the Murrumbidgee Region. In 1984 the Wran Government transformed the Riverina College of Advance Education into the Riverina Murray Institute of Higher Education (RMIHE), with campuses in both Wagga Wagga and Albury. Five years later the Greiner Government merged the RMIHE with the Mitchell College of Advanced Education (in Bathurst) to form Charles Sturt University (CSU). CSU began with campuses at Bathurst and Wagga Wagga, and subsequently opened a campus at Albury.⁷⁴

3.4 Evolving economic landscape

In country Australia, as in its urban counterpart, the last quarter of the 20th century witnessed the growth of the "services" sector. This is illustrated in the following tables:

People Employed in Country Regions by Industry Area Australia-Wide (by Number): 1976-1996⁷⁵

	1976	1996
Services	1,117,400	1,666,000
Agriculture	364,900	277,000
Manufacturing	281,100	235,000
Mining	56,200	57,000
Unspecified	133,800	79,000

People Employed in Country Regions by Industry Area Australia-Wide (by Percentage): 1976 - 1996⁷⁶

	1976	1996
Services	57.2%	72%
Agriculture	18.7%	12%
Manufacturing	14.4%	10.2%
Mining	2.9%	2.5%
Unspecified	6.8%	3.4%

The Murrumbidgee and Murray regions are no exception to this trend. By 2010-11, 77% of employment in the region was in the services sector. Moreover, as discussed later in this paper, over the past ten years the greatest increase in employment has been in "accommodation and food services", "health and care and social

assistance" and "building and construction". Primary production, by contrast, employs 767 fewer workers in 2011 than a decade earlier. Thus, while the continuing importance of agriculture for the region's prosperity is not in doubt, the need "to look to diversifying industries" is acknowledged.⁷⁷ The following list of significant employers in the two regions suggests the extent to which the process of diversification is underway:

Murrumbidgee: Selected Significant Employers⁷⁸

Australian Defence Force
Austrack
Baiada
Big Rivers Timber
Byrne Transport
Casella
Charles Sturt University
Days Transport
DeBortoli
DePaoli Transport
FLT Pty Ltd
Fonterra Brands
Freedom Foods
G and J Groves Pty Ltd
Glencore Grain
Golden West Packing House
GrainCorp
Hart Bros
Hartwigs
Heinz
ICM
June Abattoir
Kirin
Lodehaul Grains
Manildra Group
Market Express Pty Ltd
Murrumbidgee Irrigation
McWilliams
Nugan Estate
Rodney's Transport
Shearer's Transport
Simmo's Transport
Summar Produce
Tenix
Teys-Cargill
Toll
Vinidex
Visy
Wagga Base Hospital
Wagga Wagga City Council

Murray: Selected Significant Employers

Apex Tools
Australian Taxation Office
Bradflo
Byford's Engineering
Charles Sturt University
Geely Automotive
Geofabrics
iPlex Pipelines
Joss Group
Kimberley-Clark
Macquarie Textiles
Norske Skog
Overall Forge
Rivalea
Seeley International
Shorko
Snopak
Stramit
Surdex Steel
Telstra (National Country Wide)
Thales

Larger scale sources of employment will always be needed. But so, too, will a dynamic small business sector. A feature of the businesses in these regions, from the 19th to the 21st centuries, is that they are mostly small in size. As Sinclair Knight Merz reported in 2011,

Most of the businesses in the Murray...[and Murrumbidgee] region[s] are relatively small with nearly 90% of businesses with a turnover of less than \$1m and less than 2% with a turnover of \$5 m or more.⁷⁹

4 KEY ECONOMIC FACTS AND FIGURES

4.1 Value of Gross Regional Product

In 2010-11 the estimated value of the Murrumbidgee's Gross Regional Product (GRP) was \$7 billion (the previous year, the region's GRP of \$6.6 billion was 1.6% of NSW Gross State Product). Manufacturing was the sector that contributed most to GRP (11.7%), followed by: agriculture, forestry and fishing (7.4%); electricity, gas, water and waste services (6.4%);

public administration and safety (6.3%); and health care and social assistance (6.1%).⁸⁰

In 2010-11 the estimated value of the Murray's GRP was \$5.3 billion.⁸¹

4.2 Business Entries and Exits

In 2007 there were 15,333 businesses in the Murrumbidgee. The figures for concerns operating in the region, as well as for business entries and exits, were as follows:

Businesses Active in the Murrumbidgee Region (plus Entries/Exits): 2007⁸²

Total Businesses	15,333
Entries	1,926
Exits	1,833

In 2007 there were 12,381 businesses in the Murray. The figures for concerns operating in the region, as well as for business entries and exits were as follows:

Businesses Active in the Murray Region (plus Entries/Exits): 2007⁸³

Total Businesses	12,381
Entries	1,494
Exits	1,368

4.3 Employment and Unemployment

Between December 2010 and December 2011 the following numbers of people (on a twelve-month average) were employed and unemployed in the combined Murray and Murrumbidgee regions.

Employed/Unemployed: Murrumbidgee and Murray Regions (Average Dec 2010–Dec 2011)⁸⁴

Employed	139,900
Unemployed	8,900

As shown in the table below, the unemployment rate in the Murray-Murrumbidgee regions has fluctuated over the last decade. It reached a low of 1.9% at the end of 2007 but has risen since to 5.1% in December 2011.

The region's unemployment rate has generally been below the NSW unemployment rate:

Unemployment Rate (%):Murrumbidgee-Murray Regions/NSW/Australia (Dec 1999 – Dec 2011)⁸⁵

Year	Murrumbidgee-Murray	NSW	Australia
1999	6.0	5.8	6.6
2000	4.0	5.6	6.2
2001	4.9	6.0	6.7
2002	6.7	5.9	6.1
2003	4.0	5.3	5.6
2004	3.8	5.0	5.0
2005	6.0	5.2	5.0
2006	3.3	4.8	4.5
2007	1.9	4.6	4.2
2008	3.9	5.2	4.5
2009	6.1	5.8	5.3
2010	5.0	4.5	4.8
2011	5.1	5.5	5.0

Youth unemployment has been relatively low in both regions. The MDBA observed in 2010 that, in both the Murrumbidgee and the Murray, "Youth unemployment is reasonably low, with most people leaving to find work elsewhere."⁸⁶

4.4 Employment by Sector

Set out in the table below is the breakdown of employment by industry for the Murrumbidgee and Murray regions. The figures are 12 month averages from December 2010 to December 2011.

Murrumbidgee-Murray Employment: 2010-2011⁸⁷

Agriculture, Forestry and Fishing	18,273
Retail	15,796
Health Care and Social Assistance	15,761
Accommodation and Food Services	13,649
Manufacturing	12,570
Education and Training	10,615
Building and Construction	9,597
Property and Business Services	8,843
Public Administration and Safety	7,915
Other Services/Arts	7,612
Transport, Postal and Warehousing	6,207
Wholesale	3,853
Financial and Insurance Services	3,067
Electricity, Gas, Water and Waste Services	2,291
Communication Services	1,183
Mining	954
TOTAL	138,186

4.5 Murrumbidgee-Murray Employment by Industry: State-Wide Comparison

The following table shows the continuing importance of agriculture for these regions, relative to the State as a whole.

Employment by Industry 2010 - 2011: % Murrumbidgee-Murray and % NSW Employment⁸⁸

	% Murrumbidgee-Murray	% NSW
Agriculture, Forestry and Fishing	13.2	2.4
Retail	11.4	10.7
Health Care and Social Assistance	11.4	11.6
Accommodation and Food Services	9.9	7.4
Manufacturing	9.1	8.1
Education and Training	7.7	7.3
Building and Construction	6.9	8.0
Property and Business Services	6.4	13.6
Public Administration and Safety	5.7	5.9
Other Services/Arts	5.5	5.9
Transport, Postal and Warehousing	4.5	5.5
Wholesale	2.8	4.0
Financial and Insurance Services	2.2	5.0
Electricity, Gas, Water and Waste Services	1.7	1.1
Communication Services	0.9	2.3
Mining	0.7	1.1

4.6 Employment Growth Sectors

For comparative purposes the two sources of regional employment statistics employed in this e-brief are the 2003 Australian Bureau of Statistics (ABS) publication *Census of Population: Selected Education and Labour Force Characteristics for Statistical Local Areas (New South Wales 2001)*⁸⁹ and the 2011 figures provided in the Labour Market Information Portal of the federal Department of Education Employment and Workplace Relations (DEEWR).⁹⁰

An issue that arises, in employing these two sets of figures, is that before 2006 the ABS used 17 occupations of employment, whereas after 2006 19 occupational categories were employed. In effect, this emerged as a result of the division of the pre-2006 occupation of "property and business services" into three post-2006 categories: "professional, scientific and technical services"; "administrative and support services"; and "rental, hiring and real estate".⁹¹ For the purposes of comparison, these three categories have been recombined to correspond to their pre-2006 counterpart.

The E-brief has also recombined the post-2006 categories of "other services" and "arts and recreation" to correspond to the 2001 census category termed "other" (which included the pre-2006 ABS occupational categories of "personal and other services" and "cultural and recreational services").⁹²

On that basis, ranked in terms of absolute increase in employment, the biggest growth sectors in the decade from 2001 to 2011 are set out below. Growth in employment is also expressed in percentage terms. As well as identifying the areas of employment growth over the last decade, this section points to the key players and developments in several industries.

Accommodation and Food Services.

Over the last 10 years, there were only two categories of employment in the combined Murrumbidgee and Murray regions in which employment increased by between 6,000 and 7,000 people. Foremost was accommodation and food services, witnessing the biggest individual increase in employment.

Employment in Accommodation and Food Services: (2001-2011)⁹³

2001	5,905
2011	13,649
Increase	7,744 (131%)

Over the last number of years, tourism has grown significantly in its contribution to the two regions. As Sinclair Knight Merz reported in 2011:

Tourism is an important industry in the...Riverina region which attracted nearly 1.8 million domestic overnight visitors in the year to June 2010. These visitors stayed some 4.7 million nights.⁹⁴

As well as many towns hosting small festivals (Wakool staged 22 festivals in 2006-07),⁹⁵ in 2007 Riverina Regional Tourism (RRT) inaugurated a "Riverina Ambassador" program to induce people to visit the region. As outlined by the RRT:

Residents of the Riverina will have the opportunity to become a Riverina Ambassador, receiving a \$1 key tag from selected local council or visitor centre and a list of deals..They then present their key tag at participating...businesses to receive benefit for themselves and Visiting Friend and Relative (VFR).⁹⁶

Health Care and Social Assistance.

This category experienced the second largest increase in employment.

Employment in Health Care and Social Assistance (2001-2011)⁹⁷

2001	9,567
2011	15,761
Increase	6,194 (65%)

Health care and social assistance is a major employer in the combined Murrumbidgee-Murray regions. In 2008-09 the Greater Southern Area Health Service (incorporating both the Murrumbidgee and Murray regions) employed 5,175 equivalent full-time staff. Wagga Wagga Base Hospital,

and Albury Base Hospital, employed 792 and 502 EFT staff respectively.⁹⁸ In the combined regions, there are around 95 retirement villages and nursing homes.⁹⁹

Building and Construction. Building and construction witnessed the third largest increase in employment.

Employment in Building and Construction: (2001-2011)¹⁰⁰

2001	6,209
2011	9,597
Increase	3,388 (54%)

Employment in this category has been driven by both a general increase in house building and a steady increase in commercial construction. In 2007 work began on the Uranquinty power station (with Bilfinger Berger as the principal building contractor). At its peak of construction (the station was commissioned in 2009) there were 387 workers employed on the site.¹⁰¹ In 2009 construction commenced in Wagga Wagga on the Riverina Energy and Bio Energy plant. 2010 saw the completion of the first stage of Regional Express's Wagga Wagga-based Australian Airline Pilot Academy.¹⁰²

In the Murray Region, between 2006 and 2009, the Abigroup (on behalf of the RTA) duplicated the Hume Highway over a length of 32 kilometres, the value of the project amounting to \$377 million.¹⁰³

Education and Training. This category experienced the fourth biggest increase in employment.

Employment in Education and Training: (2001-2011)¹⁰⁴

2001	7,951
2011	10,615
Increase	2,664 (34%)

As outlined above, there are a considerable number of educational facilities in the Murrumbidgee and Murray regions. At the Wagga campus of Charles Sturt University (CSU), in 2010, there were 310 academics and 544 administrative and general staff. At the Albury CSU campus, in 2010, there were 87 academic staff and 149 administrative and general staff.¹⁰⁵ Across the two regions there were Riverina-TAFE campuses at: Albury; Coomealla; Cootamundra; Corowa; Deniliquin; Finley; Griffith; Hay; Junee; Lake Cargellico; Leeton; Narrandera; Temora, Wagga Wagga; West Wyalong; and Young. In 2010 there were just over 36,000 students enrolled in Riverina-TAFE courses. During the same year, throughout all the Riverina-TAFE campuses, there were 1,096 teachers and 375 administrative and support staff.¹⁰⁶ In the combined Murrumbidgee and Murray regions, there are 188 government schools of all kinds.¹⁰⁷

Other Services/Arts and Recreation:

These joint categories encompass occupations that, in the 2001 census, were combined together as "other". This category included "personal and other services" and "cultural and recreational" services. "Personal and other services" covered the small business sector and included: funeral services; dry cleaning and hair dressing; security services; video hire services; and veterinary care for pets.¹⁰⁸

Employment in Other Services/Arts and Recreation (2001-2011)¹⁰⁹

2001	4,997
2011	7,612
Increase	2,615 (52%)

Public Administration and Safety.

The presence of the military installations around Wagga Wagga, as well as, in the case of Albury, the

presence of the neighbouring Bandiana Army Barracks in Wodonga,¹¹⁰ has ensured a steady increase in employment in public administration and safety.

Employment in Public Administration and Safety (2001-2011)¹¹¹

2001	5,479
2011	7,915
Increase	2,436 (45%)

In 2008 the mayor of Wagga Wagga estimated that military-related activity accounted for the employment of around 9,000 workers and contractors in his town alone. In recent years, in Wagga Wagga, army and air force facilities have actually expanded. By 2008 an upgrade of RAAF base had been completed (at a cost of \$60 million) and the Enhanced Land Force Project was due to begin at Kapooka (at a cost of \$108 million).¹¹²

Local government is also a significant employer in both regions. In 2011, Wagga Wagga City Council employed 467 full-time equivalent (FTE) staff and Albury City Council employed 466.¹¹³

Property and Business Services.

This category has witnessed an increase of nearly 2,300 people employed over ten years.

Employment in Property and Business Services: (2001-2011)¹¹⁴

2001	6,550
2011	8,843
Increase	2,293 (35%)

"Property and business services" includes professions such as accountancy, law, and engineering.¹¹⁵ The steady increase in this category is a reflection of the considerable number of accountancy and legal firms in the Riverina. WHK (based in Albury), the largest accountancy and financial services firm in the Riverina, was

originally established in 1893.¹¹⁶ Throughout the Murrumbidgee and the Murray there are at least 94 firms of accountants, and at least 33 firms of solicitors.¹¹⁷

Transport, Postal and Warehousing.

Transport, Postal and Warehousing has seen modest growth over the last ten years.

Employment in Transport, Postal and Warehousing: (2001-2011)¹¹⁸

2001	4,544
2011	6,207
Increase	1,663 (37%)

Freight haulage has always had a substantial presence in the Riverina. Finemore Holdings was established by Ron Finemore, in 1946, just outside Wagga Wagga. By 1998 it operated 600 trucks and had 1,700 employees. Three years later, Finemore's was taken over by Toll. By that stage, the company had 650 trucks and employed 2,000 personnel.¹¹⁹

Transport activity in other parts of the Murrumbidgee and Murray regions has likewise expanded in tandem with the growth of primary production. In Griffith, for example, as the Murray Darling Basin Authority observed, the wine grape and fruit growing industry has associated with it "a major transport industry...[and] warehousing ...services."¹²⁰

Financial and Insurance Services.

This category of employment has experienced a 60% increase in employment over the last ten years.

Employment in Financial and Insurance Services: (2001-2011)¹²¹

2001	1,931
2011	3,067
Increase	1,136 (60%)

There are over 80 bank branches, and financial services firms in the Riverina. There are also nearly 70 branches of either insurance companies, or insurance services firms in the two regions.¹²²

Electricity, Gas, Water and Waste Services. Despite changes to the ownership of electricity and gas distribution in the Riverina, this category experienced a significant increase in jobs between 2001 and 2011.

Employment in Electricity, Gas, Water and Waste Services: (2001-2011)¹²³

2001	1,159
2011	2,291
Increase	1,132 (98%)

Until the period of the Carr Government, electricity in Wagga and Albury had been supplied by the relevant county councils. In 1996 the Carr Government formed Great Southern Energy (a government-owned corporation) to supply electricity in the Riverina, and to supply gas to Wagga Wagga. Gas, in Albury, has been supplied by Albury Gas Company or AGC (a subsidiary of the Victorian Gas and Fuel Corporation). In 1999 however, following the Kennett Government's sale of Victoria's electricity and gas assets, Envestra acquired the AGC. Two years later, the Carr Government transformed Great Southern Energy into Country Energy.¹²⁴ Between 2001 and 2010, Country Energy engaged over 200 apprentices in its southern (or Riverina) region.¹²⁵

In early 2011, under the Keneally Government, Country Energy's retail operations were transferred to Origin Energy and its distribution activities were transferred to Essential Energy (EE). Currently EE's southern region has 721 employees.¹²⁶

Mining. From a low base there has been a substantial increase in employment in mining over the last 10 years.

Employment in Mining: (2001-2011)¹²⁷

2001	134
2011	954
Increase	820 (612%)

Contributing to the increase is Bemax Resources which, in 2005, began operating the Ginkgo and Snapper mineral sands mines in the Wentworth LGA. Currently there are 70 workers employed at Ginkgo, plus 69 workers and 123 contractors at Snapper.¹²⁸

This increase is likely to gather pace as Iluka's West Balranald mineral sands project becomes fully operational over the next few years. The West Balranald (and nearby Nepean) deposits were discovered in 1998. Jointly they contain about 45.7 million tonnes of minerals: 63% ilmenite; 12% rutile and 11% zircon. Extraction is to be undertaken by Iluka Resources, the biggest miner of zircon in the world.¹²⁹

Communication Services. This category had the smallest increase in employment.

Employment in Communication Services: (2001-2011)¹³⁰

2001	1,097
2011	1,183
Increase	86 (8%)

It is likely that employment growth in this sector has been affected by a number of factors, including consolidation of regional media based on Canberra, technological changes and the flat performance of conventional media. For example, in 1980 the *Wagga Daily Advertiser* had an annual average daily circulation of 16,471, compared to 16,149 in 2011.¹³¹

Manufacturing. Amongst the four sectors where there was a drop in employment over the past decade, manufacturing was the sector with the least decline.

Employment in Manufacturing: (2001-2011)¹³²

2001	12,968
2011	12,570
Decrease	-398 (-0.1%)

The decline in employment appears to be part of a long-term trend in manufacturing, at least in Wagga. In 1998, Moore Paragon printers closed (making 91 workers redundant) and Laminex closed its medium density fibreboard (MDF) press (laying off 75 workers).¹³³ In December 2000, Goodman Fielder ceased operating its Murrumbidgee bakery.¹³⁴ During the opening years of the 21st century the redundancies in manufacturing continued. Riverina Wool Combing (which originally employed 250 workers) ceased operating in 2009. In 2011, Heinz announced that it would eliminate 33 positions from its Wagga Wagga plant.¹³⁵ This year, Drivetrain Systems International or DSI (the eventual acquirer of Borg-Warner's operations) announced that it intended to lay off 38 workers at the Albury plant (while nevertheless still retaining 172 staff).¹³⁶

Retail. Retail has seen an even greater decline in employment over the past decade.

Employment in Retail: (2001-2011)¹³⁷

2001	16,422
2011	15,796
Decrease	-626 (-3.8%)

Agriculture, Forestry and Fishing. While Agriculture, Forestry and Fishing remains the foremost area of employment in the Murray-

Murrumbidgee, employment numbers have declined over the past decade.

Employment in Agriculture, Forestry and Fishing (2001-2011)¹³⁸

2001	19,040
2011	18,273
Decrease	-767 (-4%)

A contributing factor to the decline in employment in this category has been the 2003-2008 drought. In 2000-01 a total of 1,300,000 tonnes of rice was produced in the Riverina.¹³⁹ By 2003, however, 100% of New South Wales had become drought stricken.¹⁴⁰ Five years later, in 2008, annual rice production in the Riverina had fallen to 19,297 tonnes.¹⁴¹ In the same year, the Deniliquin rice mill temporarily ceased operations, with a loss of 90 jobs. The Deniliquin abattoir also closed (with a loss of 120 jobs).¹⁴² Only by 2010 did the drought finally begin to break, rice production reaching 204,085 tonnes in the same year. The Deniliquin rice mill reopened in 2011.¹⁴³

Wholesale. This category witnessed the greatest drop in employment between 2001 and 2011.

Employment in Wholesale: (2001-2011)¹⁴⁴

2001	6,119
2011	3,853
Decrease	-2,266 (-37%)

On a general level, the wholesale sector has been substantially adjusting over the last 10 years. A recent manifestation of this has been the commissioning by Woolworths, in 2006, of its regional distribution centre (RDC) at Wodonga. The RDC can receive 1,000 trucks a day, and delivers to approximately 50 retail outlets in Victoria, southern NSW and the ACT.¹⁴⁵

5 THE PROPOSED BASIN PLAN: POTENTIAL IMPACTS

5.1 Background

In November 2011, the Murray-Darling Basin Authority (MDBA) released the [proposed Basin Plan](#) for consultation purposes. The Plan is a statutory instrument made under Part 2 of the *Water Act 2007* (Cth) for the management of the water resources of the Murray-Darling Basin (MDB). Both the Murray and Murrumbidgee regions lie entirely within the Basin.

5.2 Diversion limits

The Basin Plan has recommended that the health of the Basin will be improved by setting a long-term environmentally sustainable level of take of water from its rivers of 10,873 gigalitres per year (GL/yr). The Basin Plan has calculated two diversion limits for each surface-water and groundwater resource unit in the MDB: Baseline Diversion Limits (BDLs); and Sustainable Diversion Limits (SDLs). BDLs establish a baseline from which to determine required reductions in diversions. They include all water pumped, diverted or intercepted for consumptive purposes. SDLs provide an upper limit on the volume of water that can be taken on a sustainable basis from the resource unit.

5.3 Sustainable Diversion Limits in the Murray and Murrumbidgee regions

The boundaries of the Murray and Murrumbidgee statistical divisions do not coincide with the surface-water and groundwater resource unit boundaries. Four surface-water resource units, including the Murrumbidgee and NSW Murray, are at least partly located in the Murray and Murrumbidgee statistical divisions.

Each surface-water resource unit SDL has two components: a "local reduction amount"; and a share of the Basin-wide "shared reduction amount". The local reduction amount "is (in most cases) the minimum reduction required within each SDL resource unit to satisfy local environmental needs."¹⁴⁶ The "shared reduction amount" is the "further reduction required in addition to the local reduction amounts to satisfy the environmental needs of the Murray and Darling rivers."¹⁴⁷ The "precise quantity contributed by each ... resource unit [to the shared reduction amount] will not be known until the total shared reduction amount ... has been recovered."¹⁴⁸

Estimated surface-water SDLs

Resource unit	Estimated BDL (GL/yr)	Local reduction amount (Local reduction achieved as of 30 Sept 2011) (GL/yr)
NSW Murray	1,812	262 (194)
Murrumbidgee	2,501	320 (137)
Lachlan	618	48 (48)
Lower Darling	60.5	8 (0.4)
Total	4,992	638 (379.4)

Significant areas of 11 groundwater resource units are located in the combined region. Their total current BDL is well below the total estimated SDL.

Groundwater long-term average SDLs

11 groundwater resource units	BDL (GL/yr)	SDL (GL/yr)
Total	639.68	937.68

5.4 Potential economic impacts

The MDBA has published a [synthesis report](#) in which they bring together all of the social and economic literature considered in developing the draft Basin Plan. The report states that:

although it is difficult to quantify, and provided that implementation options are carefully managed and coordinated, the long-run social,

economic and environmental benefits of the Basin Plan are likely to outweigh the long-run costs. At the Basin scale ... the Basin Plan is estimated to reduce the level of gross regional product by less than 1 per cent and this will likely be more than offset by broader economic growth over the transition period to 2019-20.¹⁴⁹

It is important to note that the precise location and magnitude of local impacts will be determined by patterns of water trading, which in turn will be influenced by a host of other factors, many of which cannot be estimated with any precision.

The MDBA found that the Murray and Murrumbidgee are two of the regions most likely to be significantly affected by the Basin Plan. According to an ABARES study, the Murray and Murrumbidgee are two of three catchments likely to experience the largest reduction in gross value of irrigated agricultural production (GVIAP). For the Murrumbidgee, GVIAP will be reduced by 18.7% (\$145.5 million), with the largest reductions experienced by rice (\$72.6 million) and cereals (\$29.1 million). For the NSW Murray region, GVIAP will be reduced by 20.8% (\$92.4 million), with the largest reduction experienced in rice (\$58.6 million).

At the local level, the towns most likely to be significantly impacted in the Murrumbidgee include: Hillston; Griffith; Leeton; Coleambally; Darlington Point; and Hay. In the Murray, it is anticipated that impacts of the Basin Plan will be most significant in smaller towns, such as: Finley; Berrigan; Jerilderie; and Barham.

A study by Arche Consulting conducted in 2011 estimated the potential short term direct impacts for

12 case study LGAs across the MDB, including four in the Murray and Murrumbidgee regions. For each of the four LGAs, it was estimated that there would be a 15.6% reduction in baseline irrigation water availability under a 2,800GL water recovery scenario.

Estimated local community impacts for selected Local Government Areas¹⁵⁰

LGA	Irrigated production (\$m)	Dryland production (\$m)	Direct and indirect employment (no.)
Griffith	-27.8 (-8.9%)	2.3	-89 (-0.8%)
Leeton	-18.6 (-11.4%)	1.8	-55 (-1.2%)
Murrumbidgee	-23.2 (-16.4%)	1.9	-69 (-6.5%)
Deniliquin/Murray	-10.9 (-14.4%)	1.7	-42 (-0.8%)

6 CONCLUSION

As with the other regions previously examined in this series of "economic profile" e-briefs – the Hunter and Illawarra – an important focus for the Murrumbidgee and Murray regions is to expand and consolidate the traditional foundations of their economies, through new products and markets, particularly in the developing Asian economies, while at the same time seeking to diversify their economic base.

In the Murrumbidgee-Murray the agriculture/forestry/fishing sector ranks first in employment terms, confirming the traditional dominance of primary production in this area. Droughts and floods notwithstanding, that dominant position is likely to continue into the future. The importance of finding new markets for products is illustrated by the example of Casella Wines. Between the 1980s and the early 1990s, Casella was a family owned vineyard employing five people and producing bulk wine in relatively small quantities for Southcorp. In 1994, John

Casella decided to embark on producing wine for the American market, to be marketed under the *Yellow Tail* brand. After teaming with American distributor W.J. Deutsch, sales of *Yellow Tail* in the USA rose from 225,000 cases in 2001 to 4 million in 2003. In those two years, *Yellow Tail* recorded the highest volume of any wine brand imported into the USA. By 2006, Casella was employing 320 people.¹⁵¹

Other groups of primary producers have also developed new markets for their products. Orange growers in the combined region, who account for nearly 50% of all Australia's orange exports, have expanded their exports to the USA, which is now the foremost destination for Australian orange exports. In 2010, Australia exported 15,711 tonnes of oranges to the USA, 49% of which were produced in NSW (\$12.4 million in value).¹⁵² Cotton growers have also been successful in the Murrumbidgee. Although cotton growing in the Murrumbidgee began and was soon abandoned in the 1960s, it was embarked on again in the 1980s. In 2007-08, Murrumbidgee growers produced 8,075 tonnes of cotton (11.5% of the NSW total).¹⁵³

At the same time as developing new markets for agricultural products, the need for diversification amongst other employment sectors is recognised. The growth of the services sector is particularly relevant in this context, with this area providing the strongest growth in employment over the past decade. The growth in tourism related employment has been especially impressive, and the same applies in respect to education and training. With the help of the State Government, Wagga Wagga and Albury have become regional centres for university and vocational education.

Here, as elsewhere, the success of government inspired or assisted projects can be patchy. The fates of the Federal Government-assisted Albury-Wodonga Growth Centre and the State Government-assisted Riverina Wool Combing, suggest that attempts to stimulate growth or to attract industry to certain regions will not always have the desired results. On the other hand, governments at all levels play an important role in the Murrumbidgee-Murray economy. For instance, regional officials have worked closely with successive federal governments to maintain the contribution of the military bases to the local economy.

The Australia Futures Task Force has said that there is an observable "strong performance of many inland...regional cities and larger towns".¹⁵⁴ In the case of the Murrumbidgee and Murray regions, out of 16 categories of occupation, there are only four where employment has declined. This seems not only a positive comment on the combined region's diversification so far, but indicative of its capacity for innovative change in the future.

Perhaps the major challenge facing the combined region arises from the debate concerning the Murray Darling Basin Plan, in particular the balance that is to be struck between environmental concerns on the one hand and the social and economic impacts on the other. Continuing uncertainty on this front is unlikely to assist economic development.

¹ ABS, [Agricultural Commodities: small area data, Australia, 2005-06 \(Reissue\) NSW](#), Table 7.

² Murray Darling Basin Authority (MDBA), [Socioeconomic analysis and the draft Basin Plan: Part A - Overview and analysis](#), November 2011. The Research Service is planning to publish an updated Issues

- Backgrounder on water management in the Murray Darling Basin.
- ³ See labour market information portal of the Department of Education, Employment and Workplace Relations ([DEEWR](#))
- ⁴ In 1997 the ABS declared that one of the regions, amongst "The regions for which labour force data will be available. . . [in the] Balance of New South Wales. . . [will be the] Murray-Murrumbidgee Statistical Region". See ABS, *Regional Labour Force Statistics: September 1997* (ABS, Canberra, 1997), p.5.
- ⁵ ABS, *Regional Population Growth (Australia)*, ABS Catalogue 3218.0 (ABS, Canberra, 2011), Population Estimates by Local Government Area, New South Wales. Table 1 (Estimated Resident Population, Local Government Areas, New South Wales).
- ⁶ ABS, n.5.
- ⁷ ABS, n.5.
- ⁸ See [Local Government Directory – Local Councils](#) on the website of the NSW department of local government.
- ⁹ Wagga Wagga City Council, *Wagga Wagga Economic Profile: 2011* (Wagga Wagga City Council, 2011), pp.13, 24, 30, 40-41.
- ¹⁰ [Local Government Directory – Local Councils](#)
- ¹¹ ABS, *National Regional Profile: Griffith* (C) (Local Government Area).
- ¹² Griffith City Council, *State of the Environment Report: 2008-09* (Griffith City Council, 2009), p.15.
- ¹³ [Local Government Directory – Local Councils](#)
- ¹⁴ Leeton Shire Council, *Submission to the NSW Department of Water and Energy* (Leeton Shire Council, 2008), p.10.
- ¹⁵ [Local Government Directory – Local Councils](#)
- ¹⁶ Ibid.
- ¹⁷ Ibid.
- ¹⁸ See the *Narrandera Daily Advertiser*, 16 September 2011.
- ¹⁹ Ibid.
- ²⁰ Ibid.
- ²¹ Ibid..
- ²² Ibid.
- ²³ Information provided by the Economic Development Office of Hay Shire Council.
- ²⁴ Ibid.
- ²⁵ Ibid.
- ²⁶ Ibid.
- ²⁷ Ibid.
- ²⁸ Murray Now, *Regional Profile: 2010* (Murray Now, Albury, 2010), p.61.
- ²⁹ See "Albury Wodonga Merger Begins to Gather Pace" on the [Local Government Focus](#) website.
- ³⁰ NSW Department of Planning, [Draft Murray Regional Strategy](#), 2009, p 15.
- ³¹ [Local Government Directory – Local Councils](#)
- ³² Booth Associates, *Strengthening Basin Communities: Ramroc Cluster Group 1, Stage 2 Studies* (Booth Associates, Griffith, 2010), pp.2, 3; Corowa Shire, *Local Profile and Issues Paper* (Corowa Shire, 2011).
- ³³ [Local Government Directory – Local Councils](#).
- ³⁴ Ibid.
- ³⁵ Ibid.
- ³⁶ Ibid.
- ³⁷ Ibid.
- ³⁸ Ibid.
- ³⁹ Ibid.
- ⁴⁰ Ibid.
- ⁴¹ Ibid.
- ⁴² Ibid.
- ⁴³ Urana Shire Council, *Community Strategic Plan 2012-2030* (Urana Shire Council, 2012), p.12.
- ⁴⁴ NSW Heritage Office, *Regional Histories of New South Wales*, vol.12, *Murray* (NSW Heritage Office, Sydney, 1996), p.150.
- ⁴⁵ NSW Heritage Office, n.44.
- ⁴⁶ Note that the term "Riverina" is defined differently by various government departments and organizations: for example, for DEEWR it includes both the Murray and Murrumbidgee regions, whereas Regional Development Australia confines it to the latter.
- ⁴⁷ A.J. Brown, "The Constitution We Were Meant To Have: Re-Examining the Origins and Strength of Australia's Unitary Political Institutions", paper presented at the *Department of Senate Occasional Lecture Series*, Parliament House, 22 April 2005.
- ⁴⁸ ABS, *Agricultural Commodities: Small Area Data, Australia, 2006-07*, ABS Catalogue 7125.0 (ABS, Canberra, 2007), tables 6 and 7.
- ⁴⁹ Ben Morgan, *The Trade and Industry of Australasia* (Eyre and Spottiswoode, London, 1908), pp.124-126; Trevor Langford-Smith, "Murrumbidgee Irrigation Development: A Study of Irrigation Planning, Establishment and Growth" in Trevor Langford-Smith and John Rutherford (eds.), *Water and Land: Two Cases in Irrigation* (Australian National University Press, Canberra, 1966), p.28.
- ⁵⁰ Laurie Walker, "Irrigation in New South Wales, 1884-1940" in the *Royal Australian*

- Historical Society*, journal proceedings, vol.27, part III, 1941, pp.202-205; David Chisholm, "The Letona Crisis" in *Rural Society*, vol.4, no.1, 1994, p.2.
- ⁵¹ See "Wine Industry History" on the [website](#) of the Riverina Wine Grape Marketing Board.
- ⁵² Riverina RDA, *Regional Plan 2010-2015* (Riverina RDA, Wagga Wagga, 2011), p.65.
- ⁵³ Marsden Jacobs and Associates, *Murrumbidgee Community Profile* (Marsden Jacobs and Associates, Melbourne, 2010), p.25.
- ⁵⁴ Murray Valley Winegrowers Incorporated, *Submission to the Inquiry into Wine Grape Market and Prices* (Murray Valley Winegrowers Incorporated, Mildura, 2010), p.1.
- ⁵⁵ Walker, n.48, pp.205-206.
- ⁵⁶ According to the CSIRO, "The Coleambally Irrigation Area was established. . .[through] the then Water Conservation and Irrigation Commission. . .[resuming] a large number of pastoral holdings to make use of water from the Snowy Mountains Hydro-Electric Scheme. Water is supplied from the Murrumbidgee River through the 41 km main canal, and 477 km of supply channels." See CSIRO, *Water Availability in the Murrumbidgee* (CSIRO, Canberra, 2008), p.21. Bureau of Agricultural Economics, *The Rice Industry* (Australian Government Publishing Service, Canberra, 1987), p.35; Wayne Meyer, *The Irrigation Industry in the Murray and Murrumbidgee Basins* (CRC for Irrigation Futures, Adelaide, 2005), pp.116-117.
- ⁵⁷ Sherry Morris, *Wagga Wagga: A History* (The Council of the City of Wagga Wagga, 1999), p.153.
- ⁵⁸ Macquarie Textiles, *Contractors' Information Booklet* (Macquarie Textiles, Albury, 2006), p.3.
- ⁵⁹ Morris, n.57, p.195.
- ⁶⁰ Department of Defence, *Redevelopment of Propellant Manufacturing and other Specified Capabilities at Mulwala: Statement of Evidence to the Parliamentary Standing Committee on Public Works* (Department of Defence, Canberra, 2006), p.4.
- ⁶¹ Francis Hurley, *An Event that Never Happened: The History and Politics of Decentralisation in Victoria and New South Wales 1885-1985* (PhD Thesis, Deakin University, 1989), pp.304-305, 307.
- ⁶² Bruce Pennay, *Making a City in the Country: The Albury-Wodonga Growth Centre Project 1973-2000* (University of NSW Press, Sydney, 2005), p.37.
- ⁶³ Industries Assistance Commission (IAC), *Canning Fruit* (IAC, Canberra, 1982), p.30.
- ⁶⁴ Robin Tiffen, *Letona: The Whole Story* (Koonadan Publications, Leeton, 1996), pp.75, 85-102.
- ⁶⁵ Riverina RDA, n.52, p.65.
- ⁶⁶ NSW Rice Marketing Board, *Annual Report: 2009-10* (NSW Rice Marketing Board, Leeton, 2010), p.32.
- ⁶⁷ Marsden Jacobs and Associates, n.53, p.26.
- ⁶⁸ Pennay, n.57, pp.37, 46, 326; Bernard Salt, *The Population Growth Database 2007* (KPMG, Melbourne, 2008), pp.36, 52.
- ⁶⁹ Bureau of Agricultural Economics, *Pulp, Paper and Paperboard Industry* (Australian Government Publishing Service, Canberra, 1986), p.14; Lionel Orchard, *Whitlam and the Cities: Urban and Regional Policy and Social Democratic Reform* PhD Thesis, University of Adelaide, 1987), p.309; *Australian Industry Group, Albury-Wodonga Manufacturing and Industrial Register: 2011* (City of Wodonga, 2011), p.8.
- ⁷⁰ Morris, n.57, p.220.
- ⁷¹ Wagga Wagga City Council, *Urban Heritage Study Inventory: Central Area Railway Precinct* (Wagga Wagga City Council, 2002), p.124.
- ⁷² Morris, n.57, p.220.
- ⁷³ For ADI and its subsequent sale to Thales see Tony Griffiths, "Lithgow's Small Arms Factory, An Overview 1907-1997: Building for War, Surviving the Peace" in *ASHET News* (Newsletter of the Australian Society for the History of Engineering and Technology), vol.1, no.2, April 2008.
- ⁷⁴ Morris, n.57, p.226-228.
- ⁷⁵ Frank Stilwell, *Economic Crisis, Cities and Regions: An Analysis of Current Urban and Regional Problems in Australia*, Pergamon Press, 1980, p.50; Productivity Commission, *Impact of Competition Policy and Reforms on Rural and Regional Australia*, 1999, p.52. In 2007-08, just over 83% of employment in Australia was provided by the services sector. See Department of Innovation, Industry, Science and Research (DIISR), *Services Sector: Overview of Structural Change 2009*, pp.4, 96.
- ⁷⁶ Stilwell, n.73; Productivity Commission, n.73.
- ⁷⁷ Riverina RDA, *Regional Plan 2010-2015* (Riverina RDA, Wagga Wagga, 2011), p.3.
- ⁷⁸ Compiled with the assistance of Jeff Stein (formerly of the Wagga Wagga office of the

- NSW Department of State and Regional Development).
- ⁷⁹ Sinclair Knight Merz, *Scenario Planning for an Innovative Response to the Water Challenge in the Murray Riverina Region*, 2011, p.11.
- ⁸⁰ Gross regional product estimates provided by the Western Research Institute of Charles Sturt University (Bathurst). See also Wagga Wagga City Council, n.9, p.8; Australian Bureau of Statistics, (ABS), *Australian National Accounts: State Accounts*, ABS Catalogue 5220.0 (ABS, Canberra, 2011), p.13.
- ⁸¹ GRP estimates provided by the Western Research Institute of Charles Sturt University (Bathurst).
- ⁸² See the "National Regional Profile" section of the [ABS](#) (2005-2009 past issues).
- ⁸³ See the "National Regional Profile" section of the [ABS](#) (2005-2009 past issues).
- ⁸⁴ See labour market information portal of [DEEWR](#)
- ⁸⁵ See ABS, *Labour Force (Historical Time Series): Australia*, ABS Catalogue 6204.0.55.001 (Table 16A – Labour Force Regions by Status and Sex); ABS, *Labour Force: Australia*, ABS Catalogue 6291.0.55.001 (Table 16 – Labour Force Status by Regions and Sex).
- ⁸⁶ Murray Darling Basin Authority (MDBA), *Guide to the Murray Darling Basin Plan*, Appendix C, *Irrigation District Community Profiles* (MDBA, Canberra, 2010), pp.922, 985.
- ⁸⁷ See the labour market information portal of [DEEWR](#).
- ⁸⁸ See the labour market information portal of [DEEWR](#)
- ⁸⁹ ABS, *Census of Population and Housing: Selected Education and Labour Force Characteristics for Statistical Local Areas: (New South Wales 2001)*, ABS Catalogue 2017.1 (ABS, Canberra, 2003).
- ⁹⁰ See the labour market information portal of [DEEWR](#).
- ⁹¹ For the definitions of these categories see ABS, *Australian and New Zealand Standard Industrial Classification*, ABS Catalogue 1291.0 (ABS, Canberra, 2006), chapter 6. See also Access Economics (AE), *The NSW Economy: A Foresighting Study* (AE, Sydney, 2010), pp.116, 141 and 145.
- ⁹² "Personal and other services" included funeral services; dry cleaning; hair dressing; courier services; security services; and video hire services". ABS, *Australian and New Zealand Standard Industrial Classification*, chapter 6.
- ⁹³ ABS, *Census of Population and Housing: Selected Education and Labour Force Characteristics for Statistical Local Areas (New South Wales 2001)*, ABS Catalogue 2017.1, p.43; labour market information portal of [DEEWR](#)
- ⁹⁴ Sinclair Knight Merz, n 79, .pp.22-23.
- ⁹⁵ Chris Gibson and Anna Stewart, *Reinventing Rural Places: The Extent and Impact of Festivals in Rural and Regional Australia* (University of Wollongong, 2009), p.4.
- ⁹⁶ See "Riverina Ambassador Rewards Program" on the [website](#) of Riverina Regional Tourism.
- ⁹⁷ ABS, p.44, n.93; labour market information portal of [DEEWR](#)
- ⁹⁸ NSW Health, *NSW Health Services Comparison Data Book 2008-09* (NSW Health, Sydney, 2010), pp.19, 48, 51.
- ⁹⁹ See "Aged Care Service List – Australia" on the [website](#) of the Apex Training Institute.
- ¹⁰⁰ ABS, n.93; p.42; labour market information portal of [DEEWR](#)
- ¹⁰¹ See Lyndsie Mewett, "BBS Powers Up Australia" on the [website](#) of Gas Today.
- ¹⁰² Wagga Wagga City Council (Commercial and Economic Development Directorate), *Economic Snapshot: December 2011*.
- ¹⁰³ See "Engineering Projects" on the [website](#) of Abigroup.
- ¹⁰⁴ ABS, n.93; labour market information portal of [DEEWR](#).
- ¹⁰⁵ See Charles Sturt University, *CSU Statistical Profile: 2010*, p.15.
- ¹⁰⁶ NSW TAFE-Riverina Institute, *Annual Report: 2010* (NSW TAFE-Riverina Institute, Wagga Wagga, 2010, pp.6, 33, 44.
- ¹⁰⁷ See the "List of Riverina Schools" section of the [NSW Public schools website](#)
- ¹⁰⁸ See ABS, n.91, chapter 6.
- ¹⁰⁹ ABS, n.93; p.44; labour market information portal of [DEEWR](#)
- ¹¹⁰ The major unit at Bandiana is the Army Logistics Training Centre. See Department of Defence, *Statement of Evidence to the Joint Standing Committee on Public Works* (Department of Defence, Canberra, 2007).
- ¹¹¹ ABS, n.93 ;labour market information portal of [DEEWR](#).
- ¹¹² Wagga Wagga City Council, *Submission to the 2008 Defence White Paper* (Wagga Wagga City Council, 2008).

- ¹¹³ See Wagga Wagga City Council, Annual Report: 2010, p.126; *The Border Mail*, 20 October 2011.
- ¹¹⁴ ABS, n.93, p.43; labour market information portal of [DEEWR](#)
- ¹¹⁵ Access Economics, n.91, pp.116, 141, 145.
- ¹¹⁶ The original predecessor of WHK was GH. Roxburgh and Company. During the 1950s the company became Roxburgh, Snare and Company. In 1981 the firm merged with Peat Marwick (the forerunner to KPMG) and, in 2008, KPMG Albury was acquired by WHK. See "Our History" on the [website](#) of WHK (Albury). John Lombard (CEO WHK Group), *Evidence Presented to the Parliamentary Joint Committee on Corporations and Financial Services*, p.1.
- ¹¹⁷ See the [TruLocal.com.au](#) website.
- ¹¹⁸ ABS, n.93, p.43; labour market information portal of [DEEWR](#).
- ¹¹⁹ See Morris, n.57, p.213; Toll Holdings, *Toll Today*, Winter 2001, p.6.
- ¹²⁰ MDBA, n.86; p.925.
- ¹²¹ ABS, n.93; p.43; labour market information portal of [DEEWR](#)
- ¹²² See [TruLocal.com.au](#).
- ¹²³ ABS, n.93; p.42; labour market information portal of [DEEWR](#)
- ¹²⁴ Australian Energy Market Commission (AEMC), *Issues in Relation to the Use of Asset, Expenditure and Related Information for Australian Electricity and Gas Distribution Businesses*, 2009, pp.2-13, 18.
- ¹²⁵ Information provided by Essential Energy.
- ¹²⁶ Information provided by Essential Energy.
- ¹²⁷ ABS, n.93; p.42; labour market information portal of [DEEWR](#)
- ¹²⁸ Information provided by the NSW Department of Trade and Investment, Regional Infrastructure and Services.
- ¹²⁹ Mildura Development Corporation, *Mildura Region: Economic Profile* (Mildura Development Corporation, 2009), p.68; (Iluka Resources, *Balranald Mineral Sands Project*, 2011, p.2.
- ¹³⁰ ABS, n.93; p.43; labour market information portal of [DEEWR](#)
- ¹³¹ See Rod Kirkpatrick, "Chronic Circulation Decline: Regional Dailies Succumb to Metropolitan Virus" in *Australian Studies in Journalism*, volume 9, 2000, p.79.
- ¹³² ABS, n.93; p.43; labour market information portal of [DEEWR](#)
- ¹³³ Kirkpatrick, n.131.
- ¹³⁴ See the "CSU Regional Archives – Businesses" section of the [Charles Sturt University website](#)
- ¹³⁵ See Stephanie Boulet, "Wool Combing Industry Dies Out", 19 November 2009, on the "ABC Rural" section of the ABC [website](#); *The Land*, 11 March 2011, p.23; "[Heinz Means Big Job Losses](#)", 27 May 2011.
- ¹³⁶ See "Exporter Sacks 60" in *The Telegraph*, 1 March 2012, p.15.
- ¹³⁷ ABS, n.93; p.43; [DEEWR](#)
- ¹³⁸ ABS, n.93; p.42; [DEEWR](#)
- ¹³⁹ Foreign Agricultural Service, *World Agricultural Production* (US Department of Agriculture, Washington DC, 2002), table 1.
- ¹⁴⁰ Margaret Alston and Jenny Knight, *Social Impacts of Drought: A Report to NSW Agriculture*, Centre for Social Research, Charles Sturt University, 2004, p.1.
- ¹⁴¹ NSW Rice Marketing Board, *Annual Report: 2010-11*, p.32.
- ¹⁴² See Deniliquin Council, *Submission to the House of Representatives Standing Committee on Regional Australia*, 2011.
- ¹⁴³ NSW Rice Marketing Board, n.66, p.32; SunRice, *Annual Report: 2011*, p.12.
- ¹⁴⁴ ABS, n.93; p.42; [DEEWR](#)
- ¹⁴⁵ See *Woolies News*, Autumn 2006, p.16; "Woolworths Wodonga Regional Distribution Centre" on the [website](#) of the Joss Group.
- ¹⁴⁶ Murray-Darling Basin Authority, [Plain English summary of the proposed Basin Plan](#), November 2011, p.80.
- ¹⁴⁷ *Ibid.*, p.80.
- ¹⁴⁸ *Ibid.*, p.80.
- ¹⁴⁹ Murray Darling Basin Authority (MDBA), [Socioeconomic analysis and the draft Basin Plan: Part A - Overview and analysis](#), November 2011, p.3.
- ¹⁵⁰ *Ibid.*, p.108.
- ¹⁵¹ Juliet Cox and Larry Bridwell, "Australian Companies Using Globalisation to Disrupt the Ancient Wine Industry" in the *Competitiveness Review*, vol.17, no.4, 2007, pp.218-220; Rob van Zanten, "Case Study 13: Wine Brand 'Yellow Tail'" in Linden Brown and Richard Fletcher (eds.), *International Marketing: An Asia-Pacific Perspective*, 4th ed, Pearson, 2007), p.654.
- ¹⁵² AgEconPlus, *Fifth Annual Review of Export Efficiency Powers: 2009* (AgEconPlus, Sydney, 2009). NSW statistics supplied by the Department of Trade, Investment and Regional Infrastructure Services.
- ¹⁵³ James Hill, *Growing Cotton in Southern NSW* (NSW Department of Primary Industries, Orange, 2008), p.1.
- ¹⁵⁴ Australia Futures Task Force (AFTF), *Challenges and Directions for Australia's Urban and Regional Future* (AFTF, University of Queensland, Brisbane, 2007), p.11.

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