



“ Business and industry in Australia use a significant amount of water. Our mining sector and service industries are set to expand. Their continued growth will require ever-increasing amounts of water ... ”

*Over the past 16 years, the fastest growing categories of exports in real terms have been manufactured exports and exports of services ... Even with export diversification occurring, we are still going to be a country with a high proportion of our exports coming from the resource sector.*

John Macfarlane, former governor, Reserve Bank of Australia, *The Australian economy: past, present and future*, speech to the National Press Club, April 2002

Business and industry are major sectors in our economy. They provide millions of Australians with employment and many of the goods and services that we need and use in our daily lives, and they earn a large part of the nation's export income.

Manufacturing industries contribute approximately 13.5% to GDP<sup>1</sup> and this has consistently been the case for the past few years. The total trading profit for the manufacturing sector in 2004–05 was \$93.2 billion<sup>2</sup> and approximately 1 057 600 people were employed in this sector.<sup>3</sup>

Service industries (such as commercial and domestic cleaning, banking, personnel agencies, health programs and care and support agencies) in 2005–06 contributed nearly 13% to GDP<sup>4</sup> and gross value was just under \$100 billion. The industries employ approximately 6 million people.<sup>5</sup>

There are 1.2 million small businesses across Australia – 400 000 of these are

in manufacturing and 780 000 in service industries.<sup>6</sup>

Like farms and households, all businesses require water inputs. But some sectors within business and industry require significantly greater inputs than others. Service industries are emerging as major water users. In 2004–05, they accounted for 1041 GL. In the same year mining and minerals processing used 397 GL, and manufacturing industries used 541 GL.<sup>7</sup>

In terms of national figures for water use, the requirements of mining do not seem all that great. However, many mining operations are situated in remote arid areas, so providing adequate water supplies and solving water-pollution problems near mine sites is vital.<sup>8</sup>

Activity in both these sectors is strongly influenced by the performance of the domestic economy and cyclical global settings. Strategic decisions will be required to meet the water needs of these sectors during periods of high activity and output.

We are experiencing a mining boom and this is reflected in water-use figures. In the past four years, water used in mining has grown from 452 GL to 608 GL – an increase of 35%.<sup>9</sup> Most of this increased consumption has occurred in Western Australia (an increase of 81%), followed by Queensland, NSW and Victoria.

Most water used in the mining industry is pumped groundwater. To date there is virtually no reuse of this water, with only 1.2% being reused in 2004–05.<sup>10</sup>

Manufacturing, on the other hand, uses both groundwater and delivered surface water. In the past four years water used by manufacturing has grown from 548 GL to 600 GL, an increase of 9%.<sup>11</sup> There is marginally greater water reuse (2.2%) by manufacturing.<sup>12</sup> Reflective of the mining boom, metals manufacturing consumed approximately 60 GL in 2001 and just over 90 GL in 2004–05.<sup>13</sup>



Table 1. Annual water use by industry sectors

STATE/TERRITORY	MINING GL	MANUFACTURING GL	SERVICE INDUSTRIES GL
New South Wales	63	126	311
Victoria	32	114	261
Queensland	83.6	158	202
South Australia	19	55	52
Western Australia	183	81	168
Tasmania	16	49	18
Northern Territory	17	6.3	29
Totals	397	541	1041

After agriculture and households, the three industry sectors indicated above use significant volumes of water. In particular, the service industry sector is emerging as a major water user. This trend is likely to continue.

Source: Australian Bureau of Statistics, *Water account, Australia, 2004–2005*, ABS, Canberra, 2006, pp. 9–47.

### ▶ REFERENCES

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3. *ibid.*, p. 5.
4. Australian Bureau of Statistics, *Australian system of national accounts, 2005–06*, cat. no. 5204.0, ABS, Canberra, 2007, p.1.
5. *ibid.*, p. 2.
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7. Australian Bureau of Statistics, *Water account, Australia, 2004–05*, ABS, Canberra 2006, pp. 9–47
8. Australian Academy of Technological Sciences and Engineering, 'Are today's water-use patterns sustainable?', *Water and the Australian economy: community summary*, Australian Academy of Technological Sciences and Engineering, Melbourne, 1999.
9. Australian Bureau of Statistics, *Water account, Australia, 2004–05*, ABS, Canberra, 2006, p. 2.
10. *ibid.*, p. 2.
11. *ibid.*, p. 2.
12. *ibid.*, p. 2.
13. *ibid.* p. 2.

### Some other useful sources

- K Ringwood, *Water Stewardship – a business imperative*, paper for Minerals Council of Australia.