

2 Major urban centres

This chapter provides comparative tables and figures for a selection of key indicators for major urban centres, aligned with a capital city and the surrounding area.

The figures and tables are compiled using data supplied by the utilities detailed in Table 2.1; exceptions are indicated in the table notes.

Utilities' structures vary, and the figures in this chapter should be treated with some caution and read in conjunction with the notes for each of the tables. For example, to provide figures which represent Sydney, Melbourne, and South East Queensland, it may be necessary to aggregate the numbers for both bulk water authorities and utilities servicing those areas. The historical values for all financial indicators have been adjusted using consumer price index (CPI) data to facilitate comparisons in real terms.

Table 2.1 Data source for capital city analysis.

Major urban centre	Utility (B denotes bulk supplier)
Perth	Water Corporation—Perth
Adelaide	SA Water
Canberra	Icon Water Limited
South East Queensland	Seqwater (B), Queensland Urban Utilities, Unitywater, Gold Coast City Council, Redland City Council, Logan City Council
Sydney	WaterNSW (B), Sydney Water Corporation
Melbourne	Melbourne Water (B), City West Water, South East Water, Yarra Valley Water
Hobart	No data—Tasmania Water and Sewerage services this area; performance data are available only on an aggregated basis for the entire State of Tasmania
Darwin	Power and Water—Darwin

2.1 Water resources

2.1.1 Volume of water sources—W1, W2, W3.1, W26

The volume of water sourced from surface water (W1), groundwater (W2), desalination (W3.1), and recycled water (W26) for each city is shown in Table 2.2.

Nationally, there was an average 9 per cent increase in the total volume of water sourced between 2016–17 and 2017–18. Perth reported the largest increase (27 per cent) by volume, sourcing an additional 79,595 ML in 2017–18. The second largest increase was reported in Adelaide with an 11 per cent (16,947 ML) increase in its total volume of water sourced.

Melbourne and Canberra are the only regions which reported a decrease (0.2 per cent and 0.8 per cent, respectively) in the total volume of water sourced in 2017–18. In the case of Melbourne, the decrease in total water sourced was mostly due to the decrease in desalination (68 per cent). The decrease in total water sourced in Canberra was due to a decrease in recycled water sourced (9 per cent).

Table 2.2 Volume of water sourced in each urban centre (ML).

Major urban centre	Surface water (W1)		Groundwater (W2)		Desalination (W3.1)		Recycled water (W26)		Total	
	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18
Adelaide	131,741	143,284	0	0	4,112	4,268	21,316	26,564	157,169	174,116
Canberra	49,916	52,157	0	0	0	0	33,210	30,296	83,126	82,453
Darwin	34,818	38,292	5,396	4,449	0	0	541	451	40,755	43,192
Melbourne ^a	428,407	448,864	0	0	46,209	14,972	32,442	42,085	507,058	505,921
Perth	0	1,135 ^b	139,598	131,948	149,823	148,905	9,568	12,100	298,989	378,584
South East Queensland ^c	299,372	325,370	7,686	13,368	1,562	2,803	14,755	13,056	323,375	354,597
Sydney	558,226	601,069 ^d	0	0	0	0	38,340	42,833	596,566	643,902

Table notes

^a Melbourne’s surface water is that sourced by Melbourne Water and South East Water while its recycled water is the total sourced by Melbourne Water and the three retailers (Yarra Valley Water, South East Water, and City West Water). Note that Melbourne Water did not report this volume (W26)

^b Perth’s volume of surface water reflects the Water Corporation transferring more water into surface water storages than it extracted. In gross terms, Water Corporation abstracted 85,631 ML of water from surface water storages in the Perth region in 2017–18.

^c The volume of South East Queensland’s surface water, groundwater, and desalinated water is sourced from Seqwater. The volume of South East Queensland’s recycled water is sourced from Seqwater and the retailers (Queensland Urban Utilities, Unitywater, Gold Coast and Redland City Councils).

^d Sydney surface water includes the total volume of Sydney Water’s surface water and the water it received from bulk suppliers (W5).

2.1.2 Average annual residential water supplied—W12

Table 2.3 reports the average volume (kL/property) of residential water supplied to customers in each major urban centre.

The volume of residential water supplied increased from 2016–17 to 2017–18 for Adelaide, Canberra, Darwin and Sydney regions, and decreased for Melbourne, Perth and South East Queensland regions.

Adelaide reported the largest increase from 2016–17 (14 per cent) in residential water supplied, which can be explained by drier summer periods with low rainfall.

Melbourne utilities reported the lowest average residential water supply in 2017–18, reflecting ongoing water saving measures.

See Section 3.1 for annual residential water supplied by all utilities.

Table 2.3 Average annual residential water supplied (kL/property).

Major urban centre ^a	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	183	186	206	171	195	14
Canberra	203	188	195	190	197	4
Darwin	407	409	405	361	368	2
Melbourne ^b	150	149	154	149	148	-1
Perth	254	244	240	223	219	-2
South East Queensland ^b	164 ^c	160	159	158	155	-2
Sydney	206	201	201	206	215	4

Major urban centre ^a	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
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Table notes

^a The figures exclude bulk utilities because they do not supply to customers.

^b Melbourne and South East Queensland figures are the weighted averages for their respective retailers (i.e. W8/C2—Total connected residential properties: water supply).

^c Redland City Council did not report against this indicator in 2013–14.

2.1.3 Total recycled water supplied—W26

Table 2.4 reports the total volume of recycled water supplied to customers, aggregated for the major urban centres (W26). Unlike W4 (volume of water sourced from recycling plants), W26 includes all recycled water supplied to various uses.

Total recycled water supply across the major urban centres increased by 11 per cent from the previous year, representing the fourth consecutive year of recycled water supply increase. Large increases in recycled water production were reported for Adelaide, Melbourne and Perth. Supply increases in these urban centres follow a drop in supply in 2016–17 compared to 2015–16. Melbourne has continued with a trend of increased recycled water supply, bolstered in 2017–18 by increased production capacity.

See Section 3.2 for recycled water supplied by all utilities.

Table 2.4 Total recycled water supplied (ML).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	25,515	29,177	28,481	21,316	26,564	25
Canberra	4,372	4,352	4,053	33,210	30,296	-10
Darwin	347	492	80	541	451	-17
Melbourne ^a	27,890	36,428	34,892	32,442	42,085	30
Perth	10,029	9,354	10,212	9,568	12,100	26
South East Queensland ^a	23,082 ^b	18,774 ^c	19,822 ^c	14,755	13,056	-12
Sydney	46,943	43,075	43,342	38,340	42,833	12

Table notes

Data for 2016–17 and earlier years are sourced from last year's published report, since the definition of W26 has changed this year.

^a Melbourne and South East Queensland figures for W26 are the aggregated figures for the bulk utility and the retailers

^b Redland City Council did not report against this indicator in 2013–14.

^c Seqwater did not report against this indicator in 2014–15 and 2015–16.

2.2 Pricing

2.2.1 Typical residential bill—P8

Table 2.5 reports the typical residential bill for water supply and sewerage in each major urban centre.

Typical residential bills across the major urban centres remained relatively stable, with a 1 per cent increase from 2016–17. Water and sewerage service customers in Adelaide experienced a 7 per cent increase in typical residential bills from the previous year, attributable to increased water usage by residential customers due to lower-than-average rainfall over the dry summer period.

Customers in Melbourne had the lowest typical residential bill across all regions, while those in Darwin had the highest, continuing the pattern seen in previous years in Table 2.5.

See Section 4.1 for the typical bills charged by all utilities.

Table 2.5 Typical residential bill: water supply and sewerage (\$).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	1,371	1,393	1,420	1,188	1,271	7
Canberra	1,175	1,153	1,175	1,158	1,169	1
Darwin	1,908	1,967	1,951	1,831	1,820	-1
Melbourne ^a	1,164	1,029	1,065	1,023	1,016	-1
Perth	1,376	1,404	1,420	1,413	1,465	4
South East Queensland ^a	1,368 ^b	1,444	1,437	1,435	1,401	-2
Sydney	1,221	1,215	1,212	1,106	1,127	2

Table notes

The figures exclude bulk utilities as they do not supply to customers.

^a Melbourne and South East Queensland figures are the weighted average of the retail utilities (i.e. P3/C2—Connected residential properties: water supply and P6/C6—Connected residential properties: sewerage).

^b Redland did not report against this indicator in 2013–14.

2.3 Environment

2.3.1 Total net greenhouse gas emissions—E12

The contribution of the utilities' operations to greenhouse gas (GHG) emissions, aggregated by major urban centre, is reported in Table 2.6.

Total net GHG emissions fluctuated widely across major urban centres. Emissions increased for most of the regions, with the highest increase in emissions (91 per cent) reported for South East Queensland. Melbourne, Perth and Sydney all reported a decrease in greenhouse emissions from the previous year.

See Section 8.1 for total net greenhouse gas emissions by all utilities.

Table 2.6 Total net greenhouse gas emissions (net tonnes CO₂ equivalent per 1,000 properties).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	258	299	421	250	285	14
Canberra	260	257	255	242	268	10
Darwin	205	165	154	179	229	28
Melbourne ^a	229	215	291	268	243	-9
Perth	731	738	817	828	754	-9
South East Queensland ^b	55 ^c	89 ^d	131	75	143	91
Sydney	85	84	145	176	173	-2

Table notes

^a Melbourne figures are the weighted average of the three retailers (i.e. E12/C4—Total connected properties). Melbourne Water's emissions are expressed on a per-connection basis.

^b South East Queensland figures are the weighted average of the retailers (i.e. E12/C4—Total connected properties).

^c Qld Urban Utilities, Gold Coast, Logan and Redland City did not report against this indicator in 2013–14.

^d Gold Coast, Unitywater, Logan and Redland City did not report against this indicator in 2014–15.

2.4 Finance

2.4.1 Combined operating cost of water supply and sewerage—F13

Table 2.7 reports the combined operating cost of the utilities' water and sewerage operations, aggregated by urban centre.

In real terms, combined operating costs decreased or remained constant across all major urban centres. Darwin reported the highest decrease (6 per cent) in combined operating costs of water and sewerage services.

See Section 5.3 for combined operating for all utilities.

Table 2.7 Combined operating cost: water supply and sewerage (\$/property).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	641	581	598	555	547	1
Canberra ^a	791	803	951 ^a	999 ^a	996	0
Darwin	1,074		1,162	979	920	-6
Melbourne	1,073	955	1,003	917	890	-3
Perth	626	608	619	598	600	0
South East Queensland	1,139 ^a	1,136	1,123	1,129	1,112	-2
Sydney ^c	711	698	714	684	664	-3

Table notes

^a Canberra figures for the 2015–16 and 2016–17 years include a water abstraction charge and a utilities network facility tax.

^b Redland did not report against this indicator in 2013–14

^c Sydney figures are for Sydney Water and include the bulk water purchases from WaterNSW.

2.4.2 Total capital expenditure for water supply and sewerage—F16

Table 2.8 reports the combined capital expenditure related to the utilities' water and sewerage operations, aggregated by major urban centre.

Most major urban centres reported an increase in their total capital expenditure for water and sewerage services, with the exception of Adelaide and Canberra, which reported decreases of 23 per cent and 6 per cent, respectively. Darwin reported a significant increase (101 per cent) in capital expenditure from the previous year, the largest increase across all major urban centres. However, Darwin still has lower total capital expenditure than the other major centres.

Melbourne reported the largest capital expenditure among all major urban centres in the year 2017–18, consistent with values seen in the past five years. Melbourne's capital expenditure in 2017–18 included construction of recycled water transfer mains, upgrade of water recycling plants, and extension of its water and sewer networks.

See Section 5.1 for combined capital expenditure for all utilities.

Table 2.8 Total capital expenditure: water supply and sewerage (\$000).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	200,919	159,885	189,365	271,282	209,819	-23
Canberra	62,431	51,434	86,762	93,591	87,891	-6
Darwin ^a	26,910		50,331	22,673	45,498	101
Melbourne ^b	640,949	721,141	753,988	807,264	876,377	9
Perth	275,961	369,677	304,672	443,520	473,102	7
South East Queensland ^b	544,132 ^c	512,514	503,699	574,076	594,926	4
Sydney ^b	661,501	674,422	688,375	660,792	809,133	22

Table notes

^a P&W (Darwin) did not report against this indicator in 2014–15.

^b Melbourne, Sydney, and South East Queensland figures are the aggregate for the bulk utility and the respective retailers.

^c Redland did not report against this indicator in 2013–14.

2.5 Customers

2.5.1 Total water and sewerage complaints—C13

Table 2.9 reports the total number of complaints for water and sewerage services received by utilities, aggregated by major urban centre.

In Adelaide, the total number of complaints from customers for water and sewerage services remained unchanged from 2016–17. There was a 50 per cent increase in total complaints for Perth. Canberra, Darwin and Melbourne experienced improved customer satisfaction (based on complaints as an indicator of satisfaction) with a decrease in the number of complaints they received in 2017–18 compared with 2016–17.

Power and Water–Darwin experienced a considerable reduction (20 per cent) in the number of customer complaints, mainly due to the introduction of smart water meters which helped to reduce water loss and excessive usage charges.

See Section 6.2 for water and sewerage complaints for all utilities.

Table 2.9 Total water and sewerage complaints (per 1,000 properties).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide			1.6	2.5	2.5	0
Canberra	4.0	4.3	3.8	4.3	3.7	-14
Darwin	49.9	39.5	86.2	85.1	68.4	-20
Melbourne	5.3	4.1	4.8	6.3	6.2	-2
Perth	1.0	0.8	0.8	0.8	1.2	50
South East Queensland	6.6 ^a	3.8	4.3	4.7	5.2	10
Sydney	3.2	2.7	2.6	2.1	2.2	5

Table notes

^a 2013–14 only includes data from Queensland Urban Utilities, Gold Coast, and Unitywater.

2.5.2 Average duration of an unplanned interruption to water supply—C15

Table 2.10 reports the average duration of unplanned interruptions to water supply in a utility's operation, aggregated by major urban centre.

South East Queensland reported the largest decrease (13 per cent) in duration of unplanned interruptions to water supply. Adelaide, Perth and Sydney all reported an increase in the duration of unplanned interruption to water supply. Melbourne reported the shortest duration of unplanned interruption to water supply among all major urban centres, at 101 minutes, which is comparable with its performance over the past five years, as well as a 5 per cent decrease in average duration of unplanned interruptions since last year.

See Section 6.1 for unplanned interruption to water supply for all utilities.

Table 2.10 Average duration of an unplanned interruption: water (minutes).

Major urban centre	2013–14	2014–15	2015–16	2016–17	2017–18	Change from 2016–17 (%)
Adelaide	153	165	189	195	237	22
Canberra	104	120	135	135	125	-7
Darwin ^a		94				
Melbourne	99	99	106	106	101	-5
Perth	117	96	108	103	112	9
South East Queensland	104 ^b	137	128	144	125	-13
Sydney	151	147	136	133	155	17

Table notes

^a No data are available for Darwin in the years 2013–14, 2015–16, 2016–17 and 2017–18.

^b 2013–14 data for South East Queensland is based on data from Queensland Urban Utilities, Gold Coast City Council, and Logan City Council.