3 Water resources

3.1 Average annual residential water supplied (kL/property)—W12

The average annual residential water supplied indicator (W12) reports the average volume (kL/property) of metered and estimated non-metered potable and non-potable water supplied to residential properties during the reporting year. It is derived by dividing the total volume of residential water supplied (W8) by the number of connected residential water properties (C2). The average volume is influenced by a number of factors, including:

- climate;
- rainfall;
- water conservation measures (for example, water restrictions);
- availability of water supply;
- housing density; and
- water prices.

Rainfall is the most influential factor affecting residential consumption. An increase in rainfall should reduce demand, and a decrease in rainfall should increase demand. A decrease in rainfall can result in a significant decrease in runoff into storages and trigger demand-management measures such as water restrictions.

Average annual residential water supply (W12) data for all utilities reporting in 2017–18 are given in Table A1, Appendix A.

3.1.1 Key findings

A summary of the median average annual volume of water supplied to residential customers, by utility group, is presented in Table 3.1.

Nationally, the median volume remained consistent with 2016–17, increasing by 4 per cent.

Table 3.1 Overview of results: Average annual residential water supplied (kL/property).

Utility group	Range		No. utilities with increase/decrease from 2016–17		Median		Change from 2016–17
	High	Low	Increase	Decrease	2016–17	2017–18	(%)
Major	219	142	8	7	161	163	1
	WC (Perth)	City West Water					
Large	368	152	7	2	185	201	9
	P&W (Darwin)	Toowoomba					
Medium	490	132	14	9	198	176	-11
	Lower Murray Water	Gladstone					
Small	487	85	18	10	191	208	9
	Central Highlands	Westernport Water					
All utility groups (national)	490	85	47	28	179	186	4
	Lower Murray Water	Westernport Water					

Table note

The median average annual residential water supplied (kL/property) is calculated using data from all utilities providing water supply services that reported data for W12 in both the 2016–17 and 2017–18 reporting years.

An increase was reported in 57 per cent of water utility regions during the 2017–18 period. Variability in the average annual water supplied between years is greatest in the Medium utility group, with changes ranging from a decrease of 41 per cent in the Gladstone region (132 kL/property in 2017–18)), to an increase of 51 per cent reported in GWM Water region (316 kL/property in 2017–18).

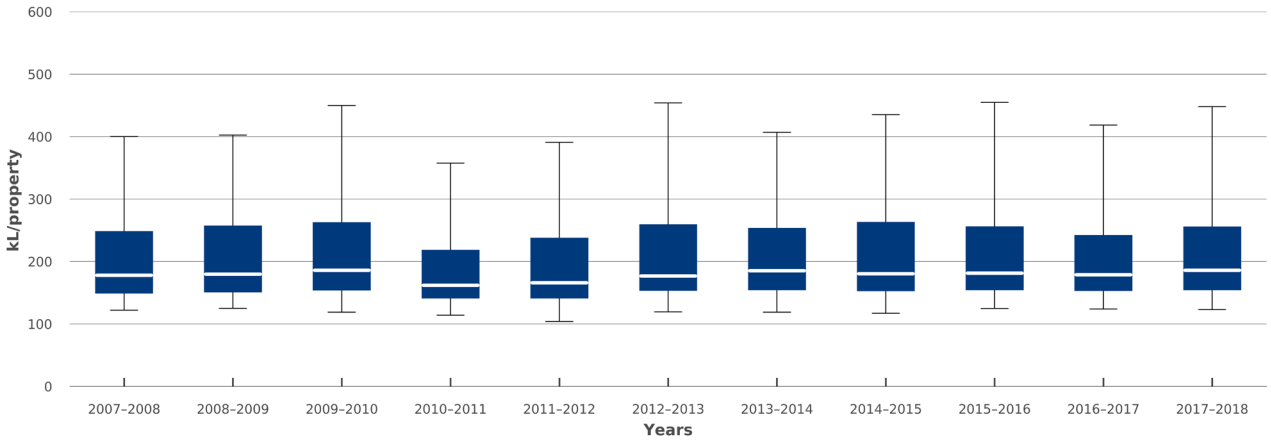

Figure 3.1 Average annual residential water supplied (kL/property).

Figure 3.1 shows a box-and-whisker plot of the average annual volume of residential water supplied for all utilities reporting W12. Across all utilities, the 2017–18 median residential water supply remains consistent with historical trends, reflecting the recent consecutive years (2012–13 to 2017–18) of warmer-than-average conditions across most of Australia.

3.1.2 Results and analysis—Major utility group

A ranked breakdown of the average residential water supplied for each utility in the Major utility group (2013–14 to 2017–18) is shown in Figure 3.2.

The largest volume supplied to residential customers occurred in the Perth and Sydney regions (219 and 215 kL/property, respectively). The highest increase from 2016–17 to 2017–18 (15 per cent) was reported by SA Water. Above-average temperatures and below-average rainfalls in this region throughout 2017–18 would have contributed to the increase in the volume of water supplied to residential customers (see Chapter 1 for climate details).

Apart from SA Water, Major group utilities supplied an average annual volume of water in 2017–18 that was consistent with 2016–17. Variations ranged from a 6 per cent decrease in the Logan region to an 8 per cent increase in Tasmania.

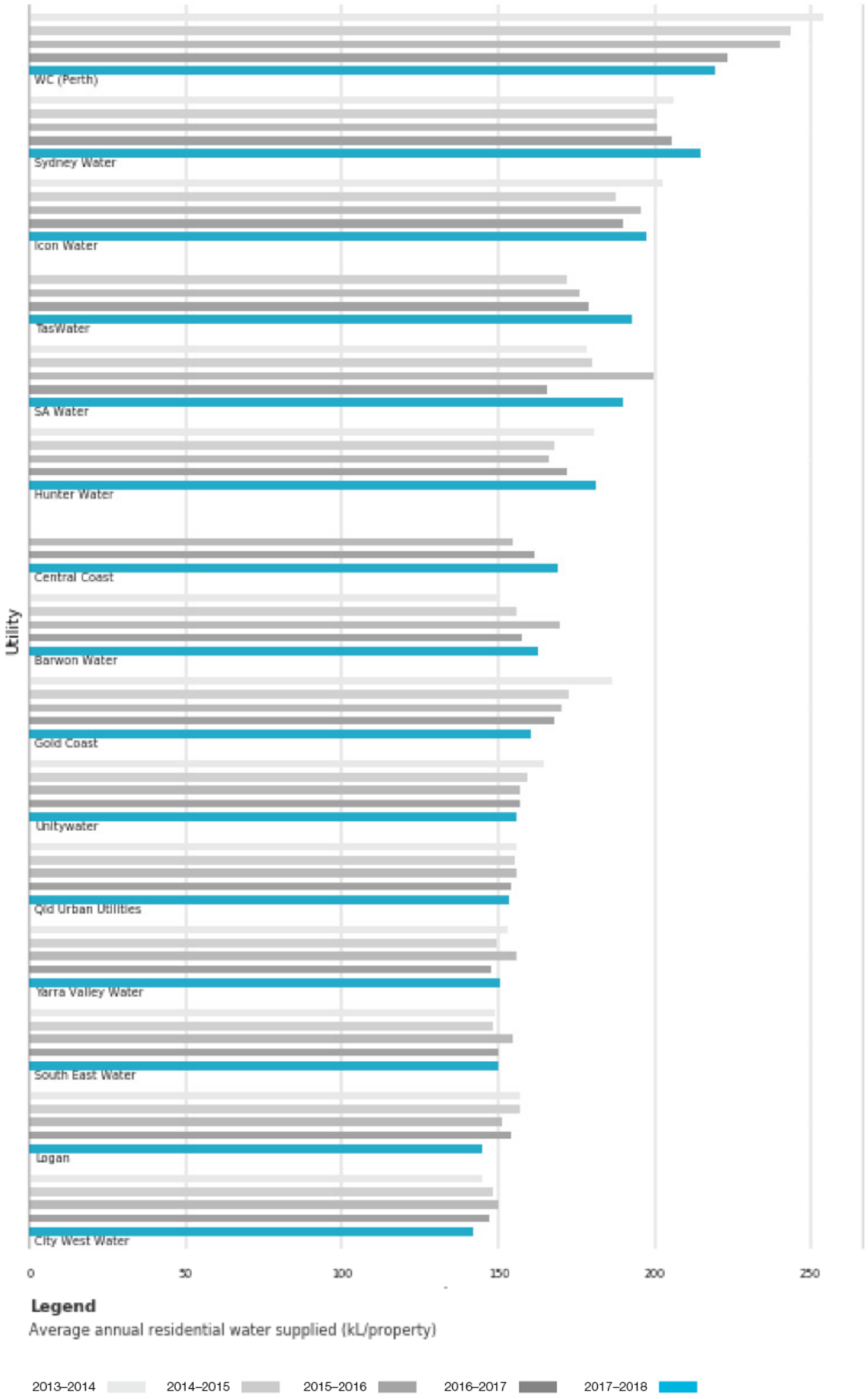

Figure 3.2 Average annual residential water supplied (kL/property)—Major utility group.

3.2 Total recycled water supplied (ML)—W26

Total recycled water supplied is the sum of all treated sewage effluent used by the utility and its customers. It includes residential, commercial, industrial, agricultural, and environmental use as well as onsite use by the utility.

The volume of recycled water supplied is affected by a number of factors, including:

- availability of potable water;
- size of the utility;
- the utility's proximity to potential customers (for example, agricultural users, major industrial customers, and recreational facilities);
- fluctuations in sewage received and effluent available for recycling; and
- government policy.

Total recycled water supply (W26) data for all utilities reporting in 2017–18 are presented in Table A2, Appendix A.

3.2.1 Key findings

A summary of the total recycled water supplied, by utility group, is shown in Table 3.2.

Table 3.2 Overview of results: Total recycled water supplied (ML).

Utility group	Range		No. utilities with increase/decrease from 2016–17		Total		Change from 2016–17
	High	Low	Increase	Decrease	2016–17	2017–18	(%)
Major	42,833	461	7	7	137,155	151,747	11
	Sydney Water	Logan					
Large	7,244	314	2	7	27,273	18,547	-32
	Western Water	Goulburn Valley Water					
Medium	8,432	70	13	9	49,929	55,102	10
	North East Water	Queanbeyan					
Small	2,172	0	12	14	17,678	18,549	5
	WC (Albany)	Multiple utilities					
All utility groups (national)	42,833	0	34	47	232,036	243,945	5
	Sydney Water	Multiple utilities					

Table note

The total recycled water supplied (ML) is calculated using data from all utilities reporting for W26 in both the 2016–17 and 2017–18 reporting years. Data for 2016–17 and earlier years are sourced from last year's published report, since the definition of W26 has changed this year.

Nationally, the total volume of recycled water supplied increased by 5 per cent in 2017–18. The largest increase is seen in the Major group. The significant decrease in the Large group reflects high interannual variability in recycled water production, where last year's total was above the long-term average.

3.2.2 Results and analysis—Major utility group

In 2016–17, the Major utility group reported an increase of 11 per cent in the total volume of recycled water supplied. This increase is attributed to increased recycled water production capacity by Melbourne Water[3] and South East Water in the reporting year.

[3] Melbourne Water is a bulk supplier and not included in Table A2