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 2018–19 are given in Table A1, Appendix A.

3.1.1 Key findings

Table 3.1 presents a summary of the median average annual volume of water supplied to residential customers, by utility group. Nationally, the median increased by 3 per cent.

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

Utility group	Range		No. utilities with increase/decrease from 2017–18		Median		Change in median from 2017–18
	High	Low	Increase	Decrease	2017–18	2018–19	(%)
Major	219	146	9	6	163	164	1
	WC (Perth)	City West Water					
Large	380	161	10	0	194	203	5
	P&W (Darwin)	Central Highlands Water (Victoria)					
Medium	519	146	14	8	178	200	12
	Lower Murray Water	Shoalhaven					
Small	457	91	11	18	214	200	-7
	P&W (Alice Springs)	Westernport Water					
All size groups (national)	519	91	44	32	186	192	3
	Lower Murray Water	Westernport Water					

The number of utilities reporting an increase in the average annual residential water supplied (44 out of 76) was similar to last year. The Large utility group was the only group where all utilities reported an increase, ranging from 0.5 per cent (Cairns) to 29.7 per cent (Townsville). The Small utility group was the only group that reported more decreases than increases in the average annual residential water supplied. Nationally, there was a large variation in the range of average annual water supplied in 2018–19, ranging from 91 kL/property (Westernport Water) to 519 kL/property (Lower Murray Water). The range in 2017–18 was slightly smaller, from 85 kL/property (Western Water) to 490 kL/property (Lower Murray Water).

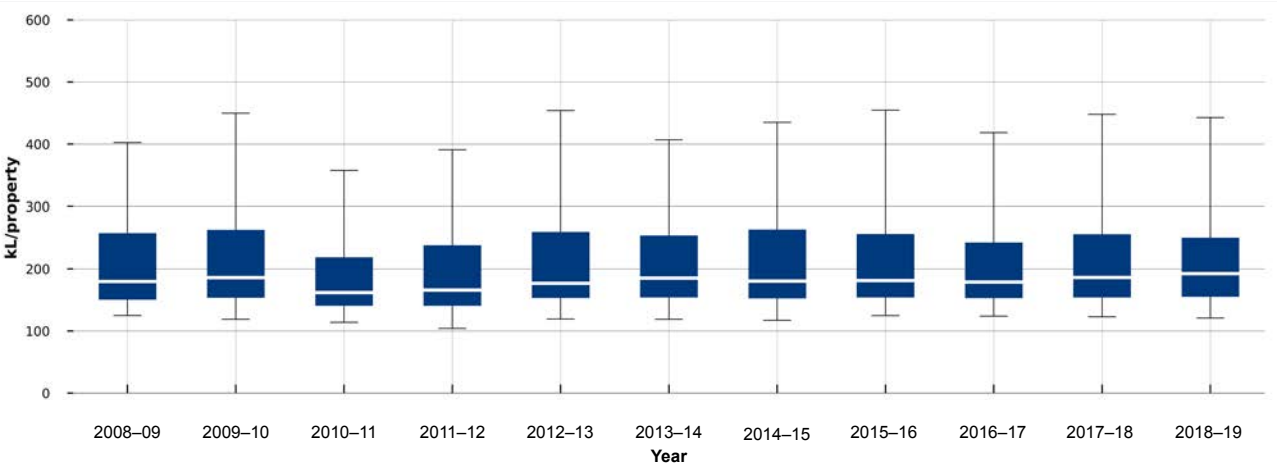

Figure 3.1 Average annual residential water supplied (kL/property).

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 2018–19 median residential water supply remains consistent with historical trends, reflecting the recent consecutive years (2012–13 to 2018–19) of warmer-than-average conditions across most of Australia.

3.1.2 Results and analysis—Major utility group

Figure 3.2 shows a ranked breakdown of the average volume of residential water supplied for each utility in the Major utility group (2014–15 to 2018–19).

The largest volume supplied to residential customers occurred in the Perth and Canberra regions (219 and 204 kL/property, respectively).

Variations ranged from a 7.3 per cent decrease by Sydney Water Corporation to a 5.2 per cent increase by Barwon Water. Above-average temperatures and below-average rainfalls in the Barwon Water region throughout 2018–19 (see Chapter 1 for climate details) would have contributed to the increase in the volume of water supplied to residential customers by Barwon Water.

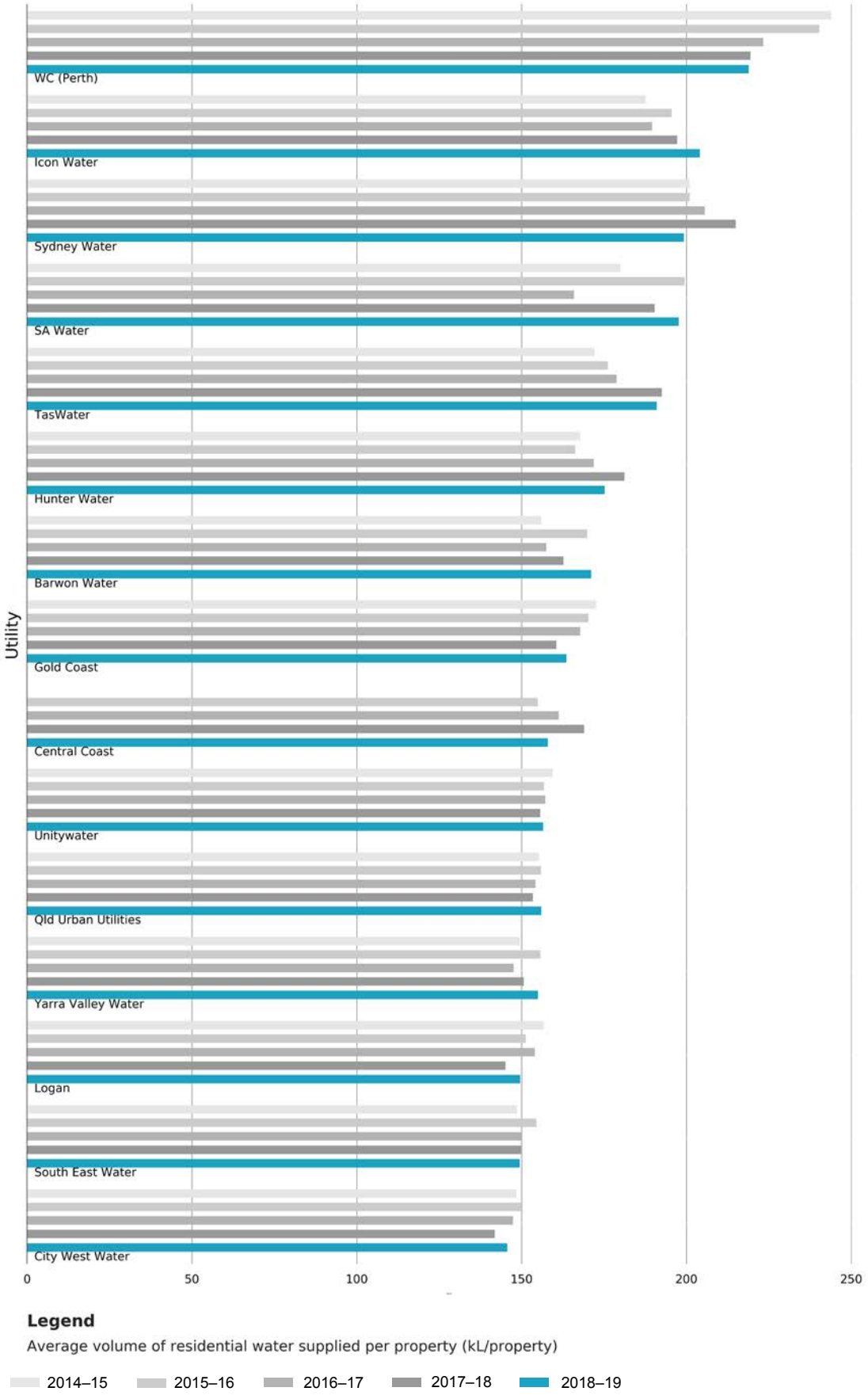

Figure 3.2 Average annual residential water supplied (kL/property)—Major utility group.

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 2018–19 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 2017–18		Total		Change in total from 2017–18
	High	Low	Increase	Decrease	2017–18	2018–19	(%)
Major	44,021	60	9	5	121,657	124,302	2
	Sydney Water	Icon Water					
Large	7,627	94	8	2	18,636	19,733	6
	Western Water	Redland City					
Medium	7,955	70	11	8	51,943	49,472	-5
	North East Water	Queanbeyan					
Small	3,074	15	16	11	19,812	21,234	7
	Orange	Lismore					
All size groups (national)	44,021	15	44	26	217,653	220,496	1
	Sydney Water	Lismore					

Nationally, the total volume of recycled water supplied increased by 1 per cent in 2018–19, the third consecutive year of increases. The largest increase (7 per cent) was seen in the Small utility group and the only decrease (5 per cent) in the Medium utility group. The variation between utility groups from year to year reflects the high interannual variability in recycled water production.

3.2.2 Results and analysis—Major utility group

In 2018–19, the Major utility group supplied nearly 30 per cent of the total recycled water nationally, and reported an increase of 2 per cent. There was a large variation in the changes between reporting periods, with Logan City Council increasing production by 35.6 per cent while Central Coast Council decreased by 35.3 per cent. Sydney Water Corporation continues to be the largest producer of recycled water with 44,021 ML, followed by SA Water Corporation with 32,312 ML.