3 Water resources

3.1 Average annual residential water supplied—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 2019–20 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 size group. Nationally, the median decreased by 6 per cent.

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

Utility group	Range		No. utilities with increase/decrease from 2018–19		Median		Change in median from 2018–19
	High	Low	Increase	Decrease	2018–19	2019–20	(%)
Major	227	146	5	10	164	161	-2
	WC (Perth)	City West Water					
Large	373	151	4	8	211	205	-3
	P&W (Darwin)	Central Highlands Water (Vic)					
Medium	520	115	9	12	186	177	-5
	Lower Murray Water	Multiple utilities					
Small	451	89	11	14	212	201	-5
	P&W (Alice Springs)	Westernport Water					
All size groups (national)	520	89	29	44	192	180	-6
	Lower Murray Water	Westernport Water					

Table note

The median average annual residential water supplied (kL/property) for each year is calculated using data from all utilities providing water supply services in that reporting year.

Nationally, there was a large variation in the average annual water supplied in 2019–20, which ranged from 89 kL/property (Westernport Water) to 520 kL/property (Lower Murray Water).

The number of utilities reporting a decrease in the average annual residential water supplied was higher than the number of utilities reporting an increase in all size groups (overall 44 out of 76 utilities reported a decrease and four reported no change). Tamworth Regional Council reported the highest percentage decrease (43 per cent) in average annual residential water supplied and Mackay Regional Council reported the highest percentage increase (15 per cent).

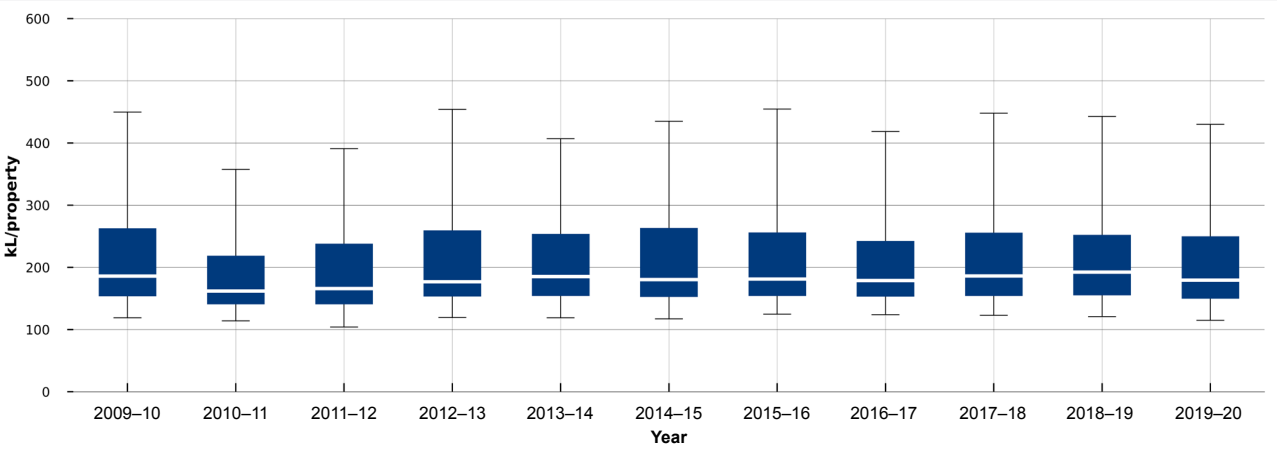

Figure 3.1 Average annual residential water supplied (kL/property).

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 2019–20 median residential water supply was consistent with historical trends, reflecting the recent consecutive years (2012–13 to 2019–20) 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 (2015–16 to 2019–20).

The largest volume supplied to residential customers occurred in the Perth and Canberra (Icon Water Ltd) regions (227 and 202 kL/property, respectively).

Variations ranged from a 10.8 per cent decrease by Hunter Water Corporation to a 7.0 per cent increase by City of Gold Coast. Above-average temperatures and below-average rainfalls in the City of Gold Coast region throughout 2019–20 would have contributed to the increase in the volume of water supplied to residential customers.

3.2 Total recycled water supplied—W26

Total recycled water supplied (ML) 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 on-site 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 supplied (W26) data for all utilities reporting in 2019–20 are presented in Table A2, Appendix A.

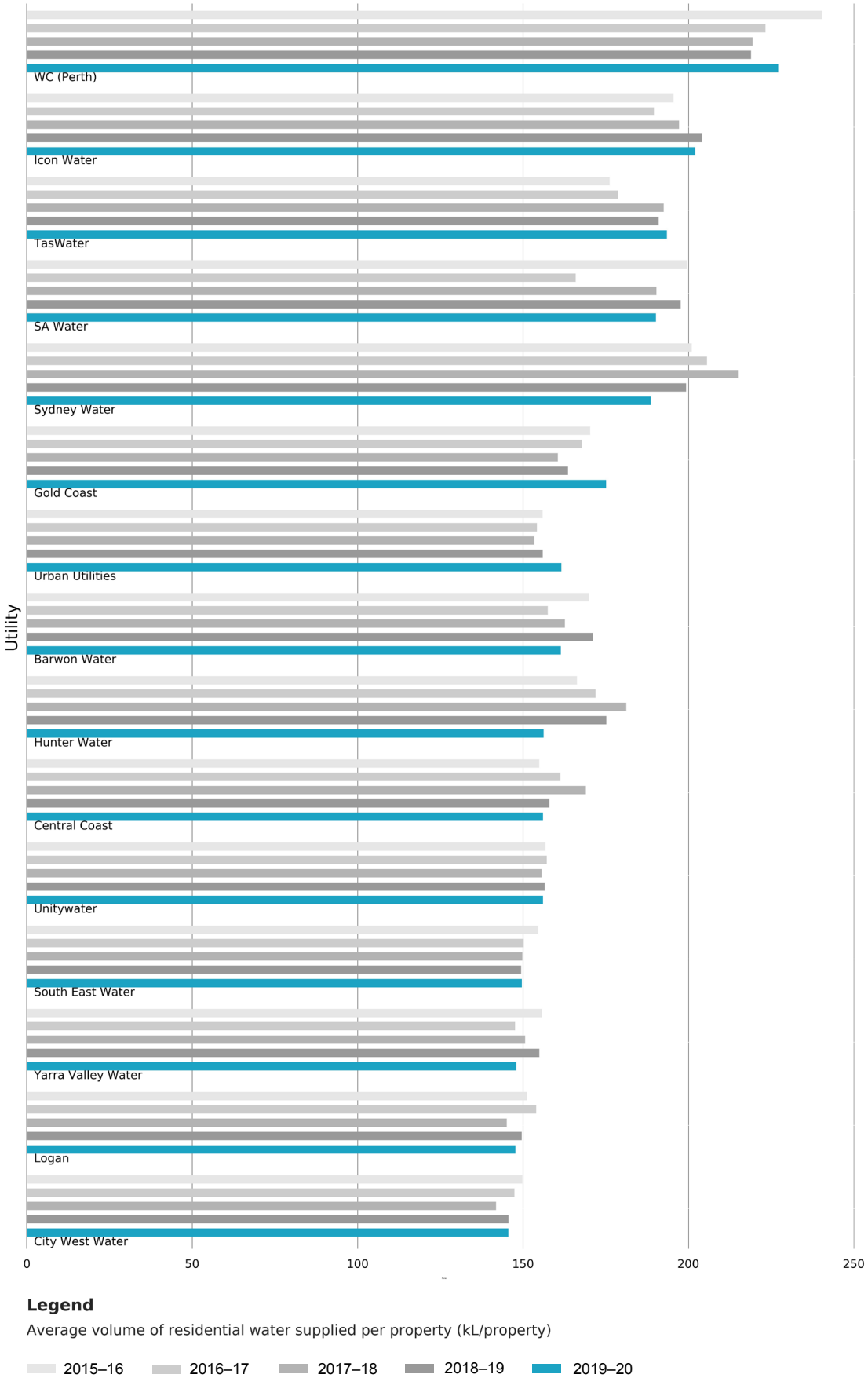

Figure 3.2 Average annual residential water supplied (kL/property)—Major utility group.

3.2.1 Key findings

Table 3.2 presents a summary of the total recycled water supplied by utility size group.

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

Utility group	Range		No. utilities with increase/decrease from 2018–19		Total		Change in total from 2018–19
	High	Low	Increase	Decrease	2018–19	2019–20	(%)
Major	46,919	75	8	6	124,301	130,336	5
	Sydney Water	Icon Water					
Large	8,093	0	4	8	27,927	25,518	-9
	North East Water	P&W (Darwin)					
Medium	6,918	0	10	12	41,814	39,431	-6
	Fraser Coast	GWMWater					
Small	2,723	17	10	14	20,698	18,242	-12
	Orange	Lismore					
All size groups (national)	46,919	0	32	40	214,740	213,527	-1
	Sydney Water	Multiple utilities					

Table note

The total recycled water supplied (ML) is calculated using data from all utilities that reported data for W26 in both the 2018–19 and 2019–20 reporting years.

Nationally, the total volume of recycled water supplied decreased by less than 1 per cent in 2019–20. The Major utility group was the only group to increase, and the largest decrease was in the Small utility group.

3.2.2 Results and analysis—Major utility group

In 2019–20, the Major utility group supplied 61 per cent of the total recycled water nationally, with an increase of 4.9 per cent from last year. There was a large variation in the changes between reporting periods; for example, Perth increased production by 111 per cent while Barwon Water decreased by 22 per cent. Perth's increase was mostly due to increased production from the Advanced Water Recycling Plant (AWRP) at the Beenyup facility as part of Perth's Groundwater Replenishment Scheme. Sydney Water Corporation continued to be the largest producer of recycled water with 46,919 ML, followed by SA Water Corporation with 26,400 ML.