

3 Water resources

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

The average annual residential water supplied (W12) indicator 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:

- climate
- rainfall
- water conservation measures (e.g. water restrictions)
- availability of water supply
- housing density
- 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 data for all utilities reporting in 2016–17 is 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 in Table 3.1.

Nationally, the median volume remained consistent with 2015–16, decreasing by 2 per cent.

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

Utility group	Range		No. utilities with increase/ decrease from 2015–16		Median		Change from 2015–16 %
	High	Low	Increase	Decrease	2015–16	2016–17	
Major	223	147	5	9	166	161	–3
	WC (Perth)	City West Water					
Large	361	150	3	8	210	185	–12
	P&W (Darwin)	Central Highlands Water					
Medium	428	120	6	15	196	198	1
	Lower Murray Water	South Gippsland Water					
Small	445	84	6	16	184	191	4
	Central Highlands	Westernport Water					
All utility groups (national)	445	84	20	48	180	176	–2
	Central Highlands	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 2015–16 and 2016–17 reporting years.

In contrast to the large number of utilities reporting increases in 2015–16, two-thirds of utilities reported a decrease in their volume of residential water supplied in 2016–17.

A 12 per cent decrease in the median volume supplied by the Large utility group was driven by decreases for seven of the nine reporting utilities in this group. Townsville Water (Townsville Regional Council) reported a 34 per cent decrease in the average annual volume of water supplied to residential customers. This decrease is attributed to the introduction of Level 3 water restrictions in August 2016 after the trigger point of below 20 per cent in the Ross River Dam was reached.¹³

Figure 3.1 shows a ‘box-and-whisker’ plot of the average annual volume of residential water supplied for all utilities reporting W12.

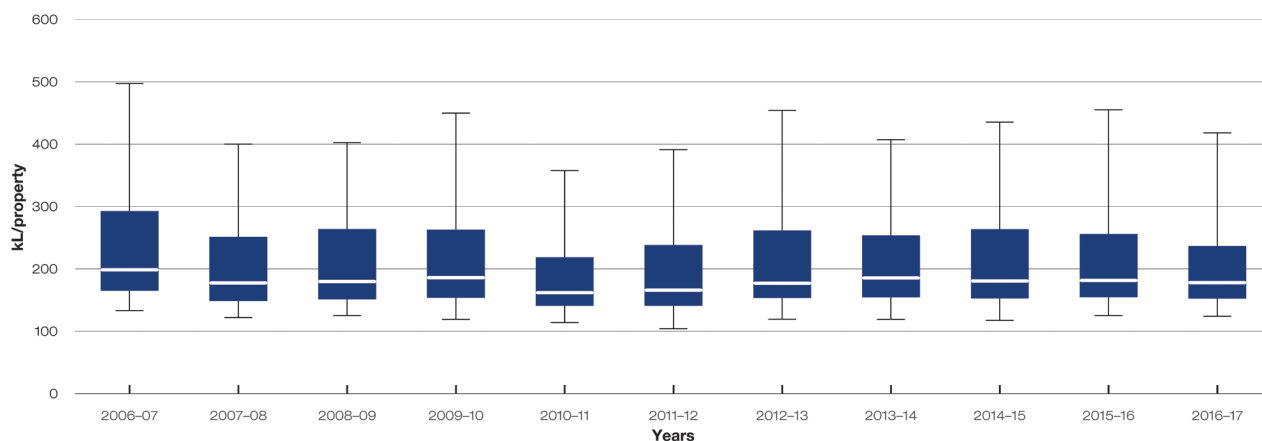


Figure 3.1 Average annual residential water supplied (kL/property)

Across all utilities, the 2016–17 median residential water supply remains consistent with historical trends, reflecting the recent consecutive years (2012–13 to 2015–16) 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 (2012–13 to 2016–17) is shown in Figure 3.2.

In the Major utility group, SA Water Corporation reported the largest decrease (17 per cent) in its volume of water supplied to residential customers. This decrease is attributed to above average Spring and Summer rainfalls across much of the State in 2016–17.

Only one third of the Major utilities reported an increase in the volume of water supplied. The largest increases were those reported by the Central Coast Council, Hunter Water Corporation, and Sydney Water Corporation. The 4 per cent increase for these regions is attributed to higher temperatures and lower rainfall, and additionally population growth in the Hunter Valley.¹⁴

¹³ 2016–17 Annual Report, City of Townsville, p 25.

¹⁴ Hunter Water 2016–17, Annual report, *General statistics*, page 92

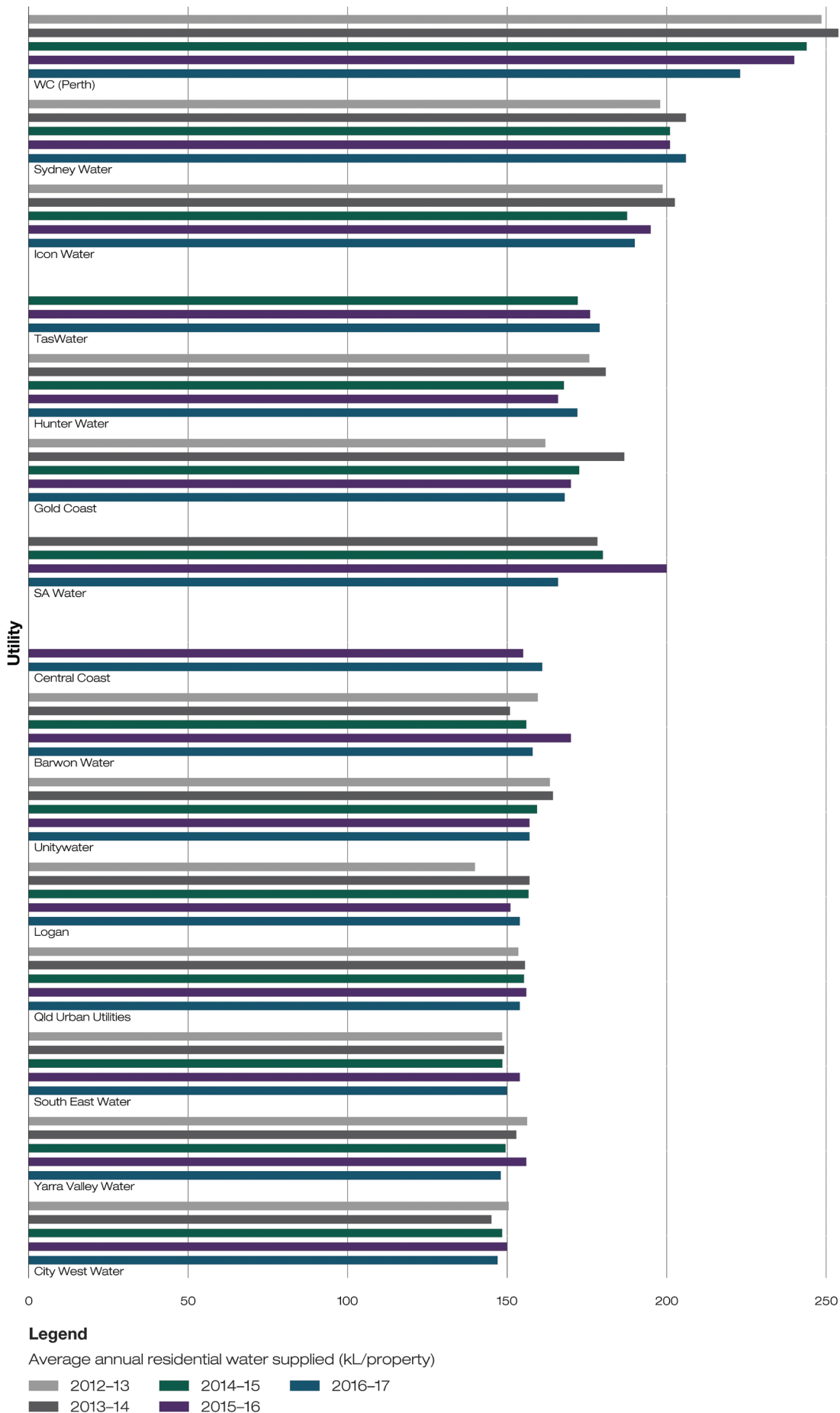


Figure 3.2 Average annual residential water supplied (kL/property) – Major utility group

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:

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

Total recycled water supply data for all utilities reporting in 2016–17 is 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 2015–16		Total		Change from 2015–16
	High	Low	Increase	Decrease	2015–16	2016–17	%
Major	38,339	724	5	8	130,721	111,676	–15
	Sydney Water	Central Coast					
Large	9,739	541	6	4	32,934	37,364	13
	Coliban Water	P&W (Darwin)					
Medium	5,923	0	13	9	45,046	47,408	5
	Wagga Wagga (S)	Riverina Water (W)					
Small	2,145	0	12	11	17,379	16,445	–5
	WC (Albany)	Multiple utilities					
All utility groups (national)	38,340	0	36	32	226,080	212,893	–6
	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 2015–16 and 2016–17 reporting years.

Nationally, the total volume of recycled water supplied decreased by 6 per cent in 2016–17. The decrease was driven by significant reductions in the total volume supplied by utilities in the Major group. SA Water Corporation and Sydney Water Corporation reported the largest decreases by volume. SA Water Corporation's 23 per cent (7,291 ML) decrease is attributed to a reduction in agricultural usage resulting from above average Spring rainfalls. Similarly, Sydney Water Corporation's 12 per cent decrease (5,003 ML) was driven by a decrease in agricultural usage.

The Large utility group recorded its third consecutive year of growth in the total volume of recycled water supplied—increasing by 40 per cent over this period.

3.2.2 Results and analysis—Major utility group

In 2016–17, the Major utility group reported a decrease of 15 per cent in the total volume of recycled water supplied. In addition to the reductions outlined in the previous discussion, this result was also driven by a change to the characterisation of onsite use by Queensland Urban Utilities. A review by the utility identified that recycled water used in treatment processes had been incorrectly included in its reported onsite use.