

3 Water resources

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

3.1.1 Introduction

This indicator, W12—Average annual residential water supplied, reports the average volume (kL/property) of metered and estimated non-metered potable and non-potable water supplied to residential properties during 2015–16. It is derived by dividing the total volume of residential water supplied (W8) by the number of connected residential water properties (C2).

This average volume is influenced by a number of factors, including climate, rainfall, water conservation measures (including water restrictions), the available water supply, housing density, and the price of water. Of these, rainfall is arguably the most influential factor affecting residential consumption. All things being equal, an increase in rainfall should reduce demand and a decrease in rainfall should increase demand. A decrease in rainfall that results in a significant decrease in runoff into storages can trigger demand-management measures such as water restrictions.

Average annual residential water supplied by all utilities reporting W12 in 2015–16 can be found in Table A1 in Appendix A.

3.1.2 Key findings

A summary of the reported average annual volume of residential water supplied, by utility size group, is presented in Table 3.1. Figure 3.1 shows a box-and-whisker plot of the average annual volume of residential water supplied for all utilities reporting W12 for a given reporting year, from 2006–07 to 2015–16.

In 2015–16, the median annual residential water supplied remained consistent with previous years, rising by only 1 per cent. Maximum temperatures across much of Australia were above-average. When assessing trends within the individual size groups, however, the three largest size groups had a higher number of utilities reporting increases in average annual residential water supplied compared to 2014–15. This is contrary to previous reporting years when the majority of utilities in each size group reported a decrease.

Table 3.1 W12—Overview of results: Average annual residential water supplied (kL/property)

Size group (connected properties)	Range		Number of utilities with increase/decrease from 2014–15		Median		Change in the median from 2014–15
	High	Low	Increase	Decrease	2014–15	2015–16	%
100,000+	240	150	9	5	164	168	2
	WC (Perth)	City West Water					
50,000–100,000	405	145	5	4	192	210	9
	P&W (Darwin)	Toowoomba					
20,000–50,000	504	139	14	7	188	196	4
	Lower Murray Water	MidCoast Water					
10,000–20,000	520	77	13	14	225	186	–17
	Central Highlands	Westernport Water					
All size groups (national)	520	77	41	30	181	182	1
	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 for both 2014–15 and 2015–16 reporting years.

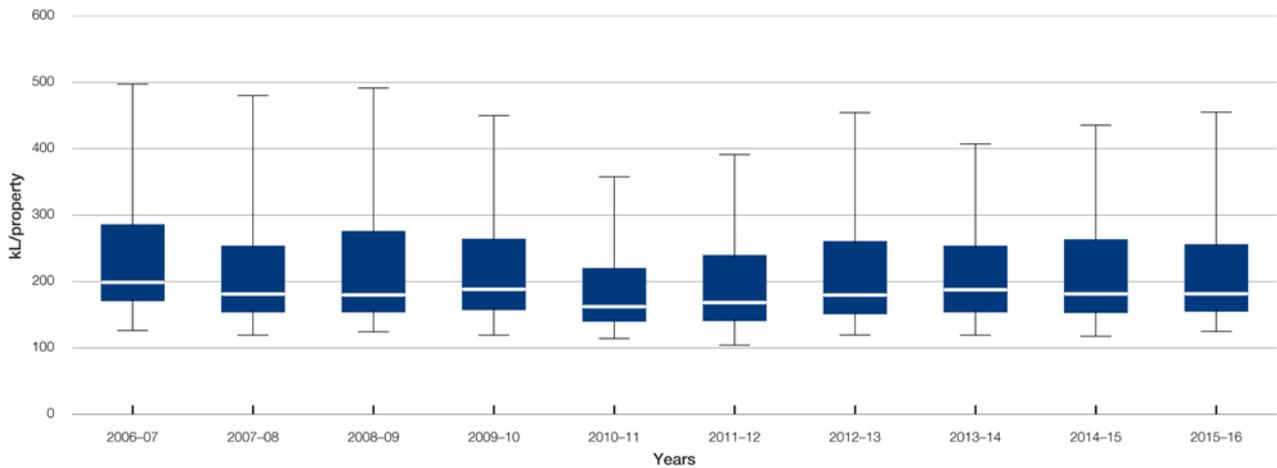


Figure 3.1 W12—Average annual residential water supplied (kL/property), 2006–07 to 2015–16

3.1.3 Results and analysis—100,000+ size group

A ranked breakdown of the average residential water supplied per annum for each utility in the 100,000+ size group from 2010–11 to 2015–16 is presented in Figure 3.2.

In 2015–16, 9 out of the 14 major utilities (100,000+ connected properties) reported an increase in the volume of water supplied from 2014–15 (Table 3.1), reversing the trend of 2014–15 where most in the group reported a decrease in volume supplied from 2013–14. The increases reported by most of the major utilities from 2014–15 were in the range of 1–11 per cent. There were notable increases reported by SA Water Corporation (11 per cent) and Barwon Water (9 per cent) from 2014–15 (Table A1 in Appendix A).

SA Water Corporation’s increase can be attributed to higher temperatures recorded in 2015–16 compared to the previous year, with large parts of the utility’s operational area recording very-much-above-average maximum temperatures for the year, with pockets of highest-on-record temperatures in the southeastern region of its operational area.

Barwon Water’s increase can also be attributed to higher temperatures and lower rainfall, with highest-on-record maximum temperatures and very-much-below-average rainfall recorded in the operational area in 2015–16.

3.2 W26—Total recycled water supplied (ML)

3.2.1 Introduction

Total recycled water supplied is the sum of all treated sewage effluent that is used by either the utility or businesses supplied by the utility, or supplied through a third-pipe system for urban re-use.

The volume of recycled water supplied is affected by a number of factors, including the availability of potable water, the size of the utility, its proximity to potential customers (such as agricultural users, major industrial customers, and recreational facilities), fluctuations in sewage received and therefore effluent available for recycling, and government policy.

Total recycled water supplied by all utilities reporting W26 in 2015–16 can be found in Table A2 in Appendix A.



Figure 3.2 W12—Average annual residential water supplied for utilities with 100,000+ connected properties (kL/property), 2010-2011 to 2015-2016

3.2.2 Key findings

A summary of the total recycled water supplied, by utility size group, is presented in Table 3.2. The nationwide total across all size groups saw a 2 per cent decrease in the total volume of recycled water supplied in 2015–16 from 2014–15.

The 100,000+ size group reported no change in the total volume of recycled water supplied from 2014–15, while there was a notable 24 per cent decrease in total recycled water supplied in the 10,000–20,000 size group from 2014–15. The decrease in the 10,000–20,000 size group was largely influenced by changes in recycled water supply by Bathurst Regional Council and Gympie Regional Council (Table A2 in Appendix A).

The medium to large utilities (50,000–100,000) were the only size group to increase their total volume of recycled water supplied, up 7 per cent to 30,344 ML from the 2014–15 volume of 28,308 ML.

Table 3.2 W26—Overview of results: Total recycled water supplied (ML)

Size group (connected properties)	Range		Number of utilities with increase/decrease from 2014–15		Total		Change in the total from 2014–15 %
	High	Low	Increase	Decrease	2014–15	2015–16	
100,000+	43,342	895	7	6	129,539	129,031	0
	Sydney Water	Central Coast					
50,000–100,000	8,956	80	5	4	28,308	30,344	7
	Western Water	P&W (Darwin)					
20,000–50,000	5,679	100	10	11	45,038	44,742	-1
	Wagga Wagga (S)	Queanbeyan					
10,000–20,000	2,051	0	8	14	20,761	15,847	-24
	Orange	Bathurst					
All size groups (national)	43,342	0	30	35	223,646	219,964	-2
	Sydney Water	Bathurst					

Table note

The total recycled water supplied (ML) is calculated using data from all utilities that reported data for W26 in both the 2014–15 and 2015–16 reporting years.

3.2.3 Results and analysis—100,000+ size group

In the major utilities size group (100,000+ connected properties), there was little change between the total volume of recycled water supplied in 2015–16 and 2014–15.

Notable deviations from 2014–15 volumes for utilities in this group were increases in volumes supplied by City West Water and Gold Coast City Council, with a 1,734 per cent and 27 per cent increase respectively, and a 39 per cent decrease reported by Barwon Water (Table A2 in Appendix A).

The marked increase in volumes supplied by City West Water was due to a large increase in the volume of recycled water supplied to commercial, municipal, and industrial customers.