

3 Water resources

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

3.1.1 Introduction

The average annual residential water supplied indicator (W12) reports the average volume (kL/property) of metered and estimated non-metered potable and nonpotable water supplied to residential properties during 2014–15. It is derived by dividing the total volume of residential water supplied (Indicator W8) by the number of connected residential water properties (Indicator C2).

This average volume is influenced by a number of factors, including climate, rainfall, water restriction policies of the utility, water conservation measures in place, 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, however, trigger demand-management measures such as restrictions.

Average annual residential water supplied by all utilities reporting Indicator W12 in 2014–15 can be found in Table A1.

3.1.2 Key findings

A summary of the reported average annual volume of residential water supplied, by utility 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 2005–06 to 2014–15.

In 2014–15, there was a decrease of 3 per cent in the nationwide median from the previous year. There was also a downturn in the trend of year-to-year increases in the median for this indicator across all utility groups nationwide for the 4-year period from 2010–11 to 2013–14.

This decrease can be explained, in part, by the observation that overall temperatures were cooler than in previous record-setting years, despite being above average.

In addition to temperature, the introduction of water restrictions by a number of utilities also explains the reduction in residential water supplied.

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

Size group (connected properties)	Range		Number of utilities with increase/decrease from 2013–14		Median		Change in the median from 2013–14 %
	High	Low	Increase	Decrease	2013–14	2014–15	
100,000+	244	148	3	10	164	159	-3
	WC (Perth)	City West Water					
50,000– 100,000	435	146	5	6	182	178	-2
	Townsville Water	Toowoomba					
20,000– 50,000	475	140	3	15	202	185	-8
	Lower Murray Water	East Gippsland Water					
10,000– 20,000	632	80	4	19	197	185	-6
	Central Highlands Regional Council	Westernport Water					
All size groups (national)	632	80	15	50	185	179	-3
	Central Highlands Regional Council	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 2013–14 and 2014–15 reporting years.

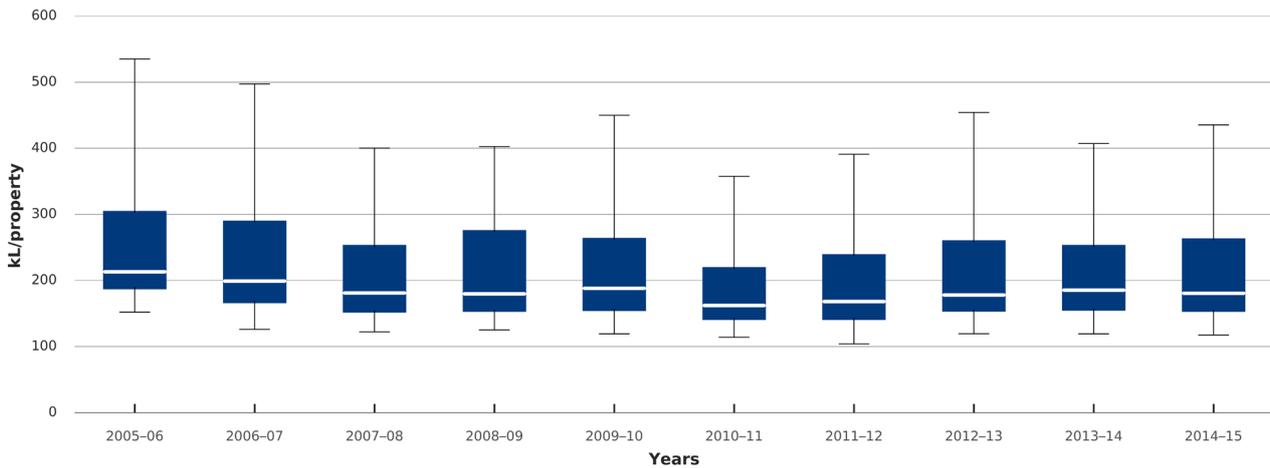


Figure 3.1 W12—Average annual residential water supplied (kL/property), 2005–06 to 2014–15

3.1.3 Results and analysis—100,000+ group

A ranked breakdown of the average residential water supplied per annum for each utility in this group from 2009–10 to 2014–15 is presented in Figure 3.2.

In the 2014–15 year, 10 of the 13 major utilities (100,000+ connected properties) reported a decrease in the volume of water supplied from 2013–14 (Table 3.1), even though most in this group had supplied more water in 2013–14 than in 2012–13 (2014 Urban NPR). The decreases reported by most of the major utilities from 2013–14 were in the range 1–4 per cent. There were notable decreases of 7 per cent reported by Hunter Water Corporation, Icon Water, and City of Gold Coast (Figure 3.2).

Hunter Water's decrease can be attributed to higher rainfalls and lower maximum temperatures within its service area in 2014–15 (compared with the previous year). The Water Wise Rules, which came into effect across the Lower Hunter on 1 July 2014 (Hunter Water 2015a), also contributed. Similarly, City of Gold Coast's decrease can also be attributed to higher rainfalls and lower maximum temperatures within its service area in 2014–15. A decrease in maximum temperatures across the ACT was a contributing factor in its result.

The three major utilities that reported an increase in their average supply volumes from 2013–14 were City West Water, Barwon Water, and SA Water.

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 reuse.

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 Indicator W26 in 2014–15 can be found in Table A2.

3.2.2 Key findings

A summary of the total recycled water supplied, by utility group, is presented in Table 3.2. The nationwide total across all groups saw a 2 per cent increase in the total volume of recycled water supplied in 2014–15 from 2013–14, following a 2 per cent decrease in the previous year. Most notable, however, is the 13 per cent increase in recycled water supplied by utilities in the 50,000–100,000 group. This increase reflects the reduced availability of surface water for the smaller regional utilities and the need to diversify supply sources in the face of growing demand.



Figure 3.2 W12—Average annual residential water supplied (kL/property), 2009-10 to 2014-15, for utilities with 100,000+ connected properties

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

Size group (connected properties)	Range		Number of utilities with increase/decrease from 2013–14		Total		Change in the total from 2013–14 %
	High	Low	Increase	Decrease	2013–14	2014–15	
100,000+	43,075	140	5	9	132,573	134,353	1
	Sydney Water	City West Water					
50,000– 100,000	7,687	19	7	4	25,804	29,086	13
	Goulburn Valley Water	Gosford					
20,000– 50,000	5,620	131	10	8	40,048	40,587	1
	Wagga Wagga	WC (Mandurah)					
10,000– 20,000	3,712	5	11	12	21,001	20,709	–1
	Bathurst	Lismore					
All size groups (national)	43,075	5	33	33	219,426	224,736	2
	Sydney Water	Lismore					

Table note

The total recycled water supplied (ML) is calculated using data from all utilities that reported data for W26 in both the 2013–14 and 2014–15 reporting years.

3.2.3 Results and analysis—100,000+ group

In the major utilities group (100,000+ connected properties), there was a 1 per cent increase in the total volume of recycled water supplied in 2014–15 from 2013–14.

The most significant increases in this group were volumes supplied by Barwon Water, South East Water, and Yarra Valley Water, with a 103 per cent, 31 per cent, and 22 per cent increase respectively (Table A2). All three have continued to report an increase in total recycled water supply over the 4 years since 2011–12 (Table A2), consistent with continuing rainfall deficiencies in their service areas.

There were significant decreases in supply reported by Logan Water (50 per cent), Unity Water (30 per cent), and City of Gold Coast (19 per cent). This was again consistent with the rainfall trends, with increased rainfall in South East Queensland in 2014–15. The region also experienced average or above-average rainfall compared to the below-average to lowest-on-record the previous year.