



ENVIRONMENTAL ISSUES: PEOPLE'S VIEWS AND PRACTICES

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For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Graeme Brown on Canberra (02) 6252 5920.

NOTES

ABOUT THIS PUBLICATION This publication is the thirteenth of its type and presents information on environmental behaviour and practices of Australian households in March 2007. Respondents were aged 18 years or older.

This edition focuses on 'Water use and conservation' and covers a range of issues including water sources, water supply, rainwater tanks and water saving measures.

ABOUT THE SURVEY The data in this publication are derived from a supplement to the Monthly Population Survey. Please refer to the Explanatory Notes at the back of this publication for further details about the survey.

DATA COMPARABILITY A set of changing topics rotate over a period of three years. The topics contained in this publication are compared with data collected in 1994, 1998, 2001 and 2004. Where applicable those data have been included in this publication to enable comparisons.

Prior to 1997, environment topics were surveyed using 'personal interview' methodology. From 1997 onwards, the 'any responsible adult' methodology has been applied. When comparing post-1997 and pre-1997 data, readers should be aware that some differences in the data may be explained by the change in methodology rather than the representing real changes over time.

ROUNDING Where figures have been rounded, discrepancies may occur between sums of the component items and totals. Published percentages are calculated prior to rounding of the figures and therefore some discrepancy may occur between these percentages and those that could be calculated from the rounded figures.



ABBREVIATIONS

ABS Australian Bureau of Statistics
ACT Australian Capital Territory
Aust. Australia
CAI computer assisted interviewing
LFS Labour Force Survey
MPS Monthly Population Survey
NSW New South Wales
NT Northern Territory
Qld Queensland
RSE relative standard error
SA South Australia
SE standard error
Tas. Tasmania
Vic. Victoria
WA Western Australia

Brian Pink
Australian Statistician



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INTRODUCTION

This publication presents the results of a survey conducted in March 2007 of environmental practices of Australian households. The topics covered were; water supply; rainwater tanks; water conservation inside the dwelling; and water use and conservation outside the dwelling and in the garden. Some of the main findings are outlined below.

MAIN FINDINGS

Sources of water

- In March 2007, 93% of households were connected to mains/town water. Nearly all (99%) households in capital cities were connected to mains/town water, compared with 85% of households outside the capital cities.
- More than eight in ten (81%) Australian households rely on mains/town water as their main source of water for drinking. This rose to 89% for households in capital cities, and dropped to 66% for households outside the capital cities.
- Forty-two per cent of households used mains/town water as their main source of water for gardening. The Northern Territory (73%) had the largest proportion reporting mains/town water as their main source of water for the garden, whereas Queensland had the lowest with only one quarter of households reporting mains/town water as their main source of water for the garden.
- More than three-quarters (77%) of households were satisfied with the quality of the mains/town water.
- Twenty nine per cent of households who reported mains/town water as a source, used a water filter. This figure was highest in South Australia (38%) and lowest in the Northern Territory (14%) and the Australian Capital Territory (15%). These two territories also reported the highest levels of satisfaction with the quality of the mains water.
- Grey water was the second most common source of water for Australian households, with 55% of households reporting it as a source of water. Victoria (72%) and the Australian Capital Territory (63%), had the highest proportion of households reporting grey water as a source.
- Nearly one-quarter of Australian households reported using grey water as their main source of water for the garden. Victoria (43%) and Queensland (27%) had the greatest proportion of households that used grey water as their main source of water for the garden.
- Nineteen per cent of households in March 2007, purchased bottled drinking water, down from 21% in 2004.
- In March 2007, slightly more than 1.5 million households (19%) reported a rainwater tank as a source of water for their dwelling. South Australia had the highest proportion (45%).
- One in ten capital city households, and one third of households outside capital cities, reported sourcing water from a rainwater tank.

Use of rainwater tanks

- The proportion of households that reported a rainwater tank as a source of water increased to 19% in March 2007 from 17% in March 2004 and from 15% in June 1994.
- The most common reason reported by Australian households as to why they had installed a water tank was to save water (42%) followed by that they were not connected to mains or town water (27%).
- Nearly a third (30%) of households who owned their dwelling had a water tank installed, compared with only 13% of rented dwellings. A quarter of family households had a water tank installed compared with only 13% of group households.
- Of the 3.9 million Australian households that did not have a rainwater tank installed (and whose dwelling was suitable for a water tank and who are home owners or purchasers), 61% had considered installing one. Queensland and the Australian Capital Territory had the highest proportions (69% and 66% respectively).
- Of the 2.4 million households who had considered installing a water tank, the most common reason reported that prevented installing a water tank was cost (48%). No time or haven't got around to it was the next most common reason reported (28%).
- 76,000 households had ordered a rainwater tank but were awaiting delivery and installation, 35,300 were from Queensland.

Water conservation inside the dwelling

- The majority of Australian households reported undertaking water saving activities inside their dwelling; 67% saved water in the bathroom, 64% in the laundry, 50% in the kitchen and 40% in the toilet.
- One quarter of Australian households reported collecting grey water in the laundry, 19% in the bathroom and 13% in the kitchen. Victoria had the highest proportion of households who reported collecting grey water; 42% in the laundry, 39% in the bathroom, and 26% in the kitchen.
- One in ten of Australian households used grey water in the laundry but only 2% of Australian households used grey water to flush the toilet.
- More than half (55%) of households had at least one water-efficient shower head installed in their dwelling.
- Almost three-quarters (74%) of dwellings which were less than one year old had water-efficient shower heads only, compared to 46% of dwellings more than 30 years old.
- In June 1994, only 39% of households had a dual-flush toilet. By March 2007, 81% of households reported that they had at least one dual-flush toilet.

Water use and conservation in the garden and outside

- In March 2007, more than four out of five Australian households had their own garden (83% or 6.7 million). The proportion of households without their own garden has risen from 13% in 1994 to 17% in 2007. In New South Wales, 24% of households did not have their own garden, an increase from 19% in 1994.
- The most common methods reported by Australian households for watering the garden were hand watering with a bucket or watering can (32%) and hand watering with a normal hose (23%). In Victoria, 49% of households hand watered with a bucket or watering can.
- More than a quarter (26%) of households with a garden do not water or relied on rainfall only. In Brisbane, nearly half (48%) of households do not water or relied on rainfall.

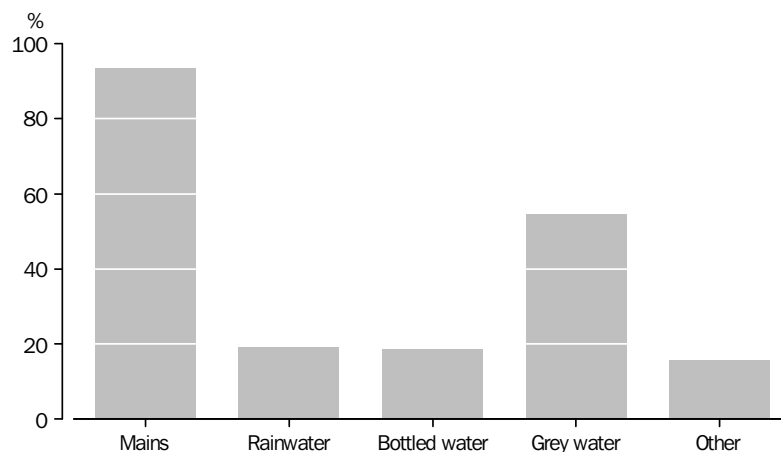
Water use and conservation in the garden and outside continued

- Households in the Australian Capital Territory (78%), South Australia (78%) and Victoria (76%) were most likely to have reported taking steps to save water in the garden. For the whole of Australia, 71% of households reported taking steps to save water in the garden.
- Of households that paid all of their water costs, nearly three-quarters (74%) reported saving water in the garden whereas only 59% of households saved water in the garden where the landlord or someone else paid for the water costs.
- Almost two-thirds of households took steps to save water outside (other than in the garden). The most common step taken was to not wash the car or wash the car less often.

INTRODUCTION

This chapter looks at the sources of water used by Australian households. The majority of households have mains/town water supply, but other households relied on rainwater tanks, bores or wells and water from rivers, creeks and dams. Some households supplement their water supply by collecting water (in containers other than tanks) or by using grey water.

2.1 SOURCES OF WATER FOR HOUSEHOLDS: 2007



MAINS OR TOWN WATER

Mains water is the most common source of water for Australian households. In March 2007, 93.4% of Australian households (7,534,400) reported sourcing their water from the mains/town water supplies. More households within capital cities were connected to mains/town water (98.5%), compared with 84.6% outside the capital cities.

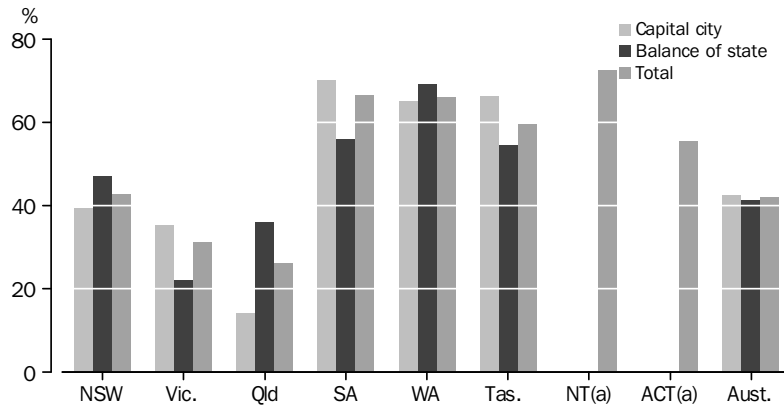
The number of Australian households that have sourced their water from the mains/town supply has remained steady since 1994, with close to 93% of households reporting mains/town as a source of water (table 2.12). The Australian Capital Territory is the only state or territory where all households reported mains/town water as a source of water.

The main source of water used for gardening by 42.1% of Australian households was mains/town water (table 2.13 and graph 2.2). The Northern Territory (72.5%) had the greatest proportion of households reporting mains/town water as their main source of water for the garden, followed by South Australia and Western Australia (66.6% and 66.1% respectively). Only one quarter (26%) of households in Queensland reported mains/town water as their main source of water for the garden. This was the lowest proportion of all states and territories. Victoria had the second lowest proportion with 31.3% of households.

MAINS OR TOWN WATER

continued

2.2 MAINS OR TOWN WATER AS MAIN SOURCE OF WATER FOR GARDENING: 2007

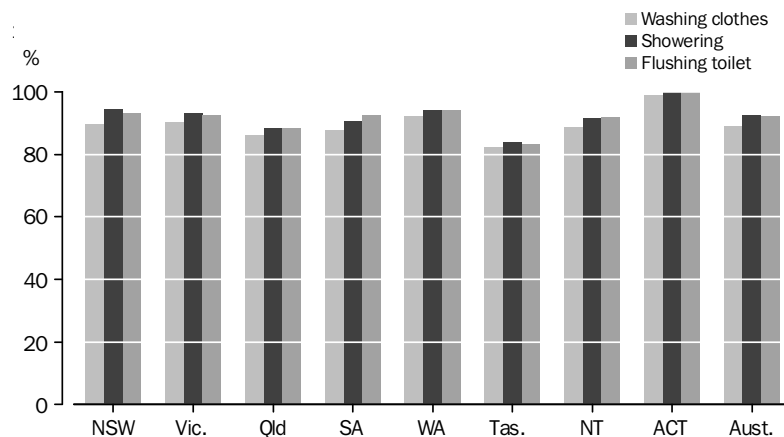


(a) NT and ACT data refers to whole of territories.

In Queensland, Western Australia and New South Wales in particular, the proportion of households outside the capital cities reporting mains/town water as their main source of water in the garden was greater than within the capital cities. In the other states, the proportion of households reporting mains/town water as their main source of water for gardening was greater in the capital cities than in the rest of the state.

Australian households reported that mains/town water was their main source of water for: bathing and showering (92.4%), for washing clothes (89.1%) and for flushing the toilet (92.0%) (tables 2.14, 2.15 and 2.16. and graph 2.3). The Australian Capital Territory had the greatest proportion of households reporting mains/town water as the main source for bathing and showering (100%), washing clothes (98.7%) and for flushing the toilet (99.7%). Tasmanian households had the lowest proportion of households reporting mains/town water as their main source for these activities (83.8%, 82.3%, and 83.2% respectively).

2.3 MAINS WATER AS A SOURCE OF WATER FOR WASHING CLOTHES, SHOWERING OR FLUSHING TOILET: 2007

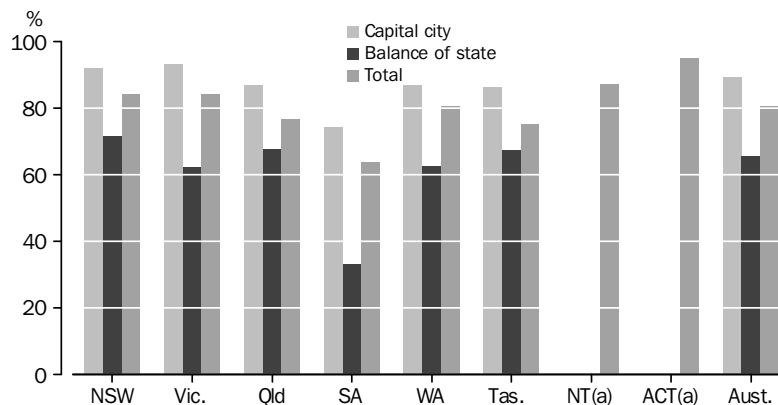


MAINS OR TOWN WATER
continued

Almost eighty-one per cent (80.8%) of Australian households reported that the mains/town water was their main source of water for drinking (table 2.17). The Australian Capital Territory had the greatest proportion of households (95%) whose main source of drinking water was the mains/town water. The state with the lowest proportion was South Australia (63.7%). This was consistently the lowest for both Adelaide (74.5%) and the rest of state (33.3%).

Nine out of ten households (89.4%) in capital cities reported mains/town water as their main source of water for drinking, compared with 65.7% outside the capital cities. Given that 84.6% of households outside the capital cities reported mains/town water as a source of water, (table 2.11), this means that 18.9% of households are choosing other sources of water, such as bottled water, as their main source of water for drinking, despite being connected to mains/town water.

2.4 MAINS OR TOWN WATER AS A SOURCE OF DRINKING WATER:
2007



(a) NT and ACT data refers to whole of territories.

**PROBLEMS AND
SATISFACTION WITH THE
MAINS WATER SUPPLY**

Of households that reported mains/town water as a source of water in 2007, 77.2% were satisfied with its quality, 18.5% were not satisfied and 3.5% did not drink the mains water (table 2.20). Furthermore, 28.6% used a water filter in 2007 (table 2.19). Use of filters has been steadily rising since 1998 when 18.2% of households used water filters. South Australia had the highest rate (38.4%) of filter use, whereas the Northern Territory (14.1%) and the Australian Capital Territory (14.8%) had the lowest reported use of water filters. These two territories have consistently reported the lowest use of water filters since 1998.

With households in the Australian Capital Territory and the Northern Territory reporting the lowest use of water filters (table 2.19), it is not unexpected that households in these two territories reported a high percentage of satisfaction with the quality of mains/town water (table 2.20). Almost 88% of households in the Australian Capital Territory (87.8%) and in the Northern Territory (87.0%) were satisfied with the quality of water from the mains.

The proportion of households in capital cities that were satisfied with the quality of the mains water (80.7%) was greater than households outside of the capital cities (70.1%).

PROBLEMS AND SATISFACTION WITH THE MAINS WATER SUPPLY
continued

Households from South Australia had the largest proportion (8.7%) reporting they did not drink the mains water, and the highest proportion reporting that they were not satisfied with the quality of mains water (25.8%).

Of households that were not satisfied with the quality of water and those who did not drink the mains water (table 2.21), the main reason was taste with 51.7%, followed by the presence of chlorine in the mains water (25.8%).

Tasmania had the highest proportion of household reporting odour, colour and chlorine as problems with the quality of mains/town water. Microbial contamination in New South Wales was the cause of dissatisfaction for 13.2% of households, a greater proportion than in any other states or territory.

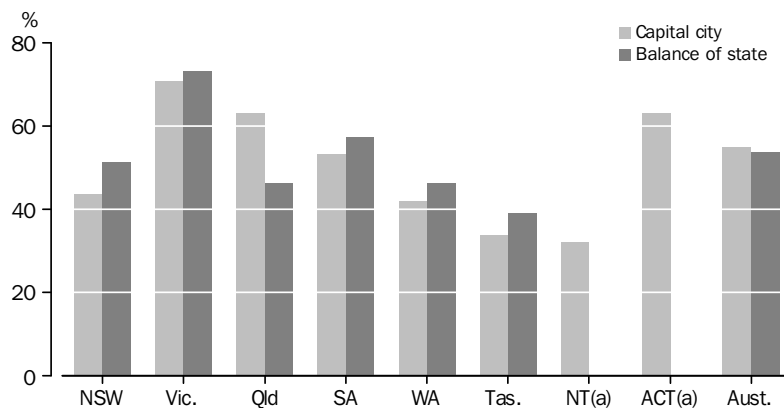
The majority (84.9%) of households that reported mains/town water as a source of water reported no water supply problems in the 12 months to March 2007 (table 2.22). Seven per cent of households reported inadequate or low pressure and 5.7% of households reported supply disruptions.

GREY WATER

Grey water is water reused from waste water sourced from shower/bath, laundry and kitchen. It is the second most common source of water for households after mains/town water (54.5%). Victoria had the highest percentage of households reporting grey water as a source (71.7%), followed by the Australian Capital Territory (63.1%) (table 2.11.). The Northern Territory had the lowest reported use of grey water (32.2%).

Using grey water was more common outside the capital cities than within them in every state except Queensland. In Queensland, 63.2% of households in Brisbane reported grey water as a source of water but in the balance of state, only 46.4% of households reported grey water as a source.

2.5 HOUSEHOLDS REPORTING GREY WATER AS A SOURCE OF WATER: 2007



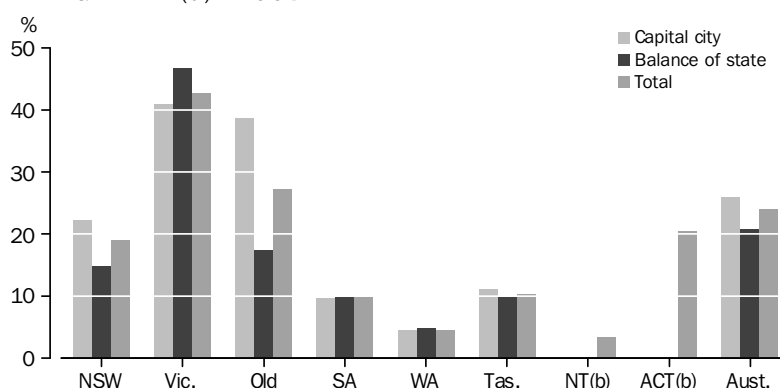
(a) NT and ACT data refers to whole of territory

Almost one quarter (24.0%) of Australian households reported grey water as the main source of water for the garden (table 2.13).

GREY WATER *continued*

In Victoria and Queensland grey water was the most common source of water for the garden (42.7% and 27.2% respectively). The Australian Capital Territory (20.5%) and New South Wales (19%) also had high proportions that reported grey water as the main source of water in the garden. The Northern Territory (3.5%) and Western Australia(4.5%) had the lowest proportion of households reporting grey water as their main source of water for the garden (graph 2.6).

2.6 GREY WATER AS THE MAIN SOURCE OF WATER FOR THE GARDEN (a) : 2007



(a) Includes only households that have a garden.
 (b) NT and ACT data refers to the whole of territory

Grey water can also be used to flush the toilet (table 2.16), although relatively few households used grey water as a main source for this purpose (0.5%). Victoria had the greatest proportion of households reporting grey water as their main source of water for flushing the toilet (1.1% or 20,900).

RAINWATER TANKS

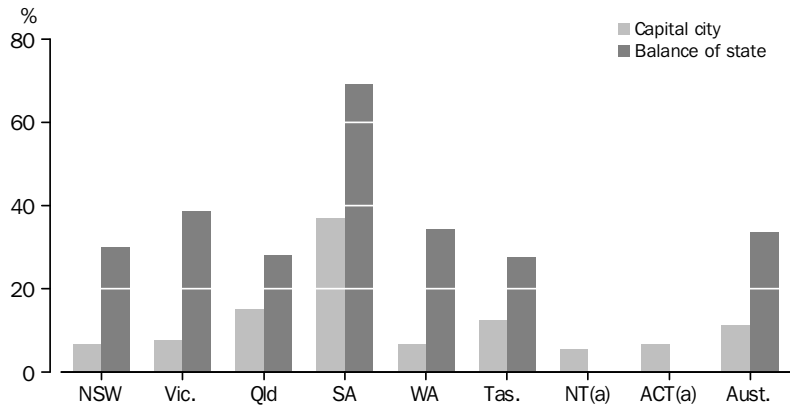
In March 2007, 19.3% of Australian households reported sourcing water from rainwater tanks (table 2.11 and graph 2.7). South Australia had the largest proportion (45.4%) of households that reported a rainwater tank as a source of water. This figure increased to 69.2% of households outside of Adelaide. Queensland had the second highest proportion (22.1%).

In capital cities only one in ten households (11.2%) reported sourcing of water from a rainwater tank, compared with one-third of households (33.5%) outside the capital cities.

RAINWATER TANKS

continued

2.7 HOUSEHOLDS SOURCING WATER FROM A RAINWATER TANK: 2007



(a) NT and ACT data refers to whole of territory

Nationally, households reporting rainwater tanks as a source of water have increased from 15.2% in 1994 to 19.3% in 2007 (table 2.12 and graph 2.8). In Queensland the number of households sourcing water from tanks increased from 17.4% in 2004 to 22.1% in 2007. The Australian Capital Territory rainwater tanks as a source of water more than doubled from 3.2% in 2004 to 6.7% in 2007.

However, in South Australia the proportion of households sourcing water from a rainwater tank has been falling since 1998 (53.5%) to 45.4% in 2007. South Australia, nevertheless, has consistently had the highest proportion of households sourcing water from a water tank since 1994.

2.8 RAINWATER TANKS AS A SOURCE OF WATER: 1994 to 2007



Over five per cent (5.5%) of Australian households used rainwater as their main source of water for the garden (table 2.13). South Australia and Queensland had the highest proportion of households reporting rainwater tanks as the main source of water for their garden (8.3% and 7.1% respectively).

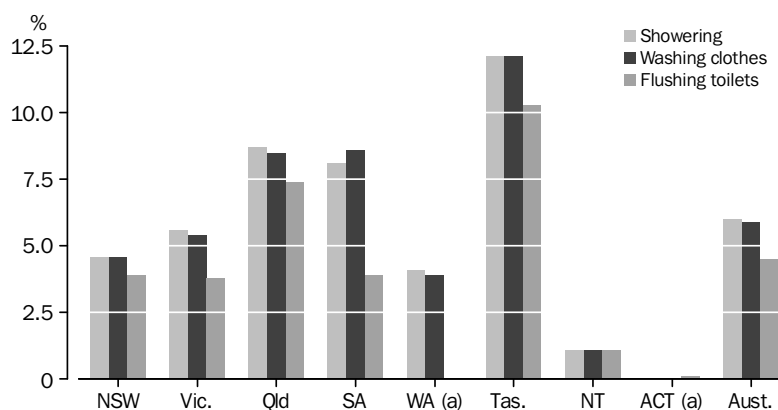
RAINWATER TANKS

continued

Nationally 6.0% of households reported that their main source of water for showering and bathing was the rainwater tank (table 2.14), and 5.9% reported rainwater tank as their main source for washing clothes (table 2.15). Over four per cent (4.5%) reported it as their main source of water for flushing the toilet (table 2.16).

Tasmania had the highest proportion of households that reported rainwater tanks as their main source of water for showering or bathing (12.1%), washing clothes (12.1%) and for flushing the toilet (10.3%). Queensland had the second greatest proportion of households reporting rainwater tank as main source of water for showering or bathing (8.7%) and flushing the toilet (7.4%). South Australia has the second greatest proportion of households reporting rainwater as the main source of water for washing clothes with 8.6% (graph 2.9).

2.9 RAINWATER TANK AS SOURCE OF WATER FOR SHOWERING, WASHING CLOTHES AND FLUSHING TOILET—2007



(a) Rainwater used for flushing toilet data is not available for publication.

Rainwater tanks were the main source of drinking water for 10.1% of Australian households in 2007. South Australia had the highest proportion (22.0%) of households whose main source of drinking water was a rainwater tank, followed by Tasmania with 14.9%.

Outside capital cities, a greater proportion of households (23.3%) reported that their main source of water for drinking was a rainwater tank compared with only 2.5% within the capital cities. One in ten households in Adelaide (10.6%) reported a rainwater tank as their main source of drinking water, the highest proportion of any capital city in Australia. South Australia also had the greatest proportion of households outside the capital cities (54.2%) whose main source of drinking water was a rainwater tank. This was more than double the next highest proportion in Western Australia (26.6%).

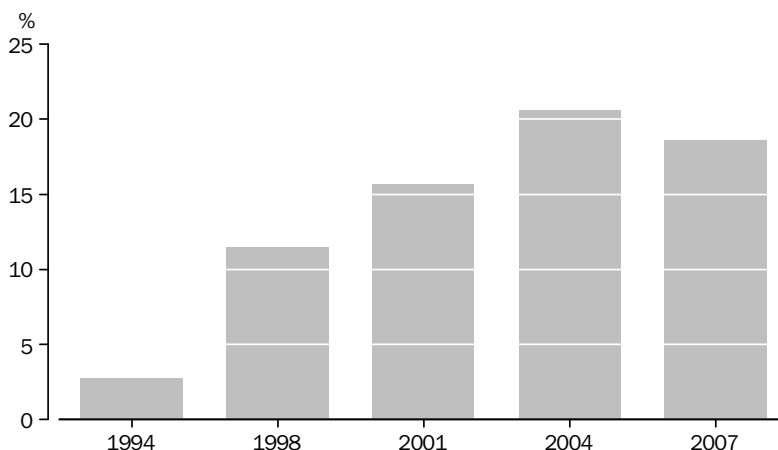
PURCHASED BOTTLED WATER

Purchased bottled water was reported as a source of water by 18.6% of households (table 2.11). South Australia and Western Australia had the highest proportions, 22.0% and 21.6% respectively. Except for Queensland and South Australia, households outside of the capital cities were more likely to purchase bottled water than households within capital cities.

PURCHASED BOTTLED WATER *continued*

The proportion of households reporting purchased bottled water as a source had been increasing steadily between 1994 and 2004. In 2007, it had fallen to 18.6% of households, down from 20.6% in 2004 (table 2.12 and graph 2.10). The largest decrease was in the Australian Capital Territory which fell from 25.9% in 2004 to 15.1% in 2007, followed by New South Wales, down from 24.8% to 18.5%. In South Australia, the reporting of purchased bottled water as a source has remained steady at 22.0% since 2004 while it has increased slightly in Western Australia and Tasmania.

2.10 PURCHASED BOTTLED WATER: 1994 to 2007



OTHER SOURCES OF WATER

Almost six per cent (5.9%) of Australian households reported that they sourced water from a bore or well (table 2.11). The proportions were relatively low in all states and territories, except for Western Australia where 22.8% of households reported a bore or well as a source of water. In Western Australia, one-quarter (25.1%) of households in Perth reported a bore or well as a source of water. Outside of Perth, 15.8% of households reported that they sourced water from a bore or well.

In Western Australia, 22.8% of households with a garden used bore or well water as their main source of water for the garden, compared to 5.3% nationwide (table 2.13).

Australian households have been collecting rainwater in containers (other than rainwater tanks) as a source of water, with 5.7% of households reporting this activity. This involved households placing buckets, bins or other containers under downpipes or simply leaving containers out in the rain. This activity was more common in the eastern states and territory of Victoria (7.9%), New South Wales (6.5%), and Queensland (5.2%).

2.11 SOURCES OF WATER FOR HOUSEHOLDS—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)(b)	ACT(b)	Aust.
NUMBER (c) ('000)									
Capital city									
Mains/town water	1 630.9	1 392.9	701.1	468.5	593.6	74.5	56.3	128.7	5 046.5
Rainwater tank(d)	112.4	109.5	109.2	177.7	41.7	10.3	*3.4	8.6	572.7
Purchased bottled water	298.9	201.3	144.6	112.7	131.4	13.0	7.2	19.4	928.4
Bore/well	*8.4	*8.4	10.5	15.1	152.7	*1.4	*5.0	—	201.4
River/creek/dam	*7.7	**4.3	*6.0	**2.9	*3.0	*1.8	—	—	25.7
Rainwater collected in other container	118.1	128.6	32.9	8.5	15.1	*1.7	np	np	314.7
Grey water	716.5	999.9	454.5	256.0	255.9	28.1	19.8	81.2	2 811.8
Other(e)	*23.3	*7.1	*4.6	*4.5	6.4	*3.8	np	np	50.0
Total households	1 637.5	1 408.0	718.6	480.6	607.3	82.8	61.4	128.7	5 124.8
Balance of state/territory									
Mains/town water	910.7	470.3	704.9	141.0	168.3	92.7	—	—	2 487.9
Rainwater tank(d)	308.9	222.9	236.6	118.0	67.9	32.3	—	—	986.7
Purchased bottled water	196.4	133.0	148.9	30.8	42.9	21.7	—	—	573.7
Bore/well	80.5	*34.8	91.7	*27.4	31.4	*5.0	—	—	270.8
River/creek/dam	57.4	55.8	44.5	*8.0	*11.8	11.9	—	—	189.5
Rainwater collected in other container	55.0	27.6	47.7	*4.3	*5.5	3.8	—	—	143.9
Grey water	531.3	423.6	391.7	97.7	92.1	45.5	—	—	1 581.7
Other(e)	*23.0	*18.5	15.0	**1.5	*5.3	7.6	—	—	71.0
Total households	1 034.9	576.7	844.4	170.6	198.2	116.3	—	—	2 941.1
Total state/territory									
Mains/town water	2 541.6	1 863.2	1 406.1	609.5	761.8	167.2	56.3	128.7	7 534.4
Rainwater tank(d)	421.4	332.4	345.7	295.7	109.6	42.7	*3.4	8.6	1 559.4
Purchased bottled water	495.3	334.3	293.5	143.5	174.3	34.7	7.2	19.4	1 502.2
Bore/well	88.9	43.1	102.2	42.5	184.0	*6.4	*5.0	—	472.2
River/creek/dam	65.2	60.1	50.5	*10.9	14.8	13.6	—	—	215.2
Rainwater collected in other container	173.1	156.1	80.6	12.8	20.6	5.5	np	np	458.6
Grey water	1 247.8	1 423.4	846.2	353.7	347.9	73.6	19.8	81.2	4 393.6
Other(e)	46.3	*25.5	19.6	6.1	11.7	11.4	np	np	120.9
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

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(a) Northern Territory data refers to mainly urban areas only.

(b) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

(c) Totals do not equal the sum of items in each column as more than one source can be specified.

(d) Includes households that use a rainwater tank as a source of water. Excludes households that have a rainwater tank installed at the dwelling but do not use the tank as a source of water.

(e) Other includes spring and water delivered in a tanker.

2.11 SOURCES OF WATER FOR HOUSEHOLDS—2007 *continued*

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)(b)	ACT(b)	Aust.
PROPORTION (%)									
Capital city									
Mains/town water	99.6	98.9	97.6	97.5	97.7	89.9	91.8	100.0	98.5
Rainwater tank(c)	6.9	7.8	15.2	37.0	6.9	12.5	*5.5	6.7	11.2
Purchased bottled water	18.3	14.3	20.1	23.5	21.6	15.7	11.7	15.1	18.1
Bore/well	*0.5	*0.6	1.5	3.1	25.1	*1.7	*8.2	—	3.9
River/creek/dam	*0.5	**0.3	*0.8	**0.6	*0.5	*2.1	—	—	0.5
Rainwater collected in other container	7.2	9.1	4.6	1.8	2.5	*2.0	np	np	6.1
Grey water	43.8	71.0	63.2	53.3	42.1	33.9	32.2	63.1	54.9
Other(d)	*1.4	*0.5	*0.6	*0.9	1.1	*4.6	np	np	1.0
Balance of state/territory									
Mains/town water	88.0	81.5	83.5	82.7	84.9	79.7	—	—	84.6
Rainwater tank(c)	29.9	38.7	28.0	69.2	34.2	27.8	—	—	33.5
Purchased bottled water	19.0	23.1	17.6	18.0	21.7	18.7	—	—	19.5
Bore/well	7.8	*6.0	10.9	*16.1	15.8	*4.3	—	—	9.2
River/creek/dam	5.6	9.7	5.3	*4.7	*6.0	10.2	—	—	6.4
Rainwater collected in other container	5.3	4.8	5.6	*2.5	*2.8	3.3	—	—	4.9
Grey water	51.3	73.4	46.4	57.3	46.4	39.1	—	—	53.8
Other(d)	*2.2	*3.2	1.8	**0.9	*2.7	6.5	—	—	2.4
Total state/territory									
Mains/town water	95.1	93.9	90.0	93.6	94.6	84.0	91.8	100.0	93.4
Rainwater tank(c)	15.8	16.7	22.1	45.4	13.6	21.4	*5.5	6.7	19.3
Purchased bottled water	18.5	16.8	18.8	22.0	21.6	17.4	11.7	15.1	18.6
Bore/well	3.3	2.2	6.5	6.5	22.8	*3.2	*8.2	—	5.9
River/creek/dam	2.4	3.0	3.2	*1.7	1.8	6.9	—	—	2.7
Rainwater collected in other container	6.5	7.9	5.2	2.0	2.6	2.8	np	np	5.7
Grey water	46.7	71.7	54.1	54.3	43.2	37.0	32.2	63.1	54.5
Other(d)	1.7	*1.3	1.3	0.9	1.5	5.7	np	np	1.5

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** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

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(a) Northern Territory data refers to mainly urban areas only.

(b) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

(c) Includes households that use a rainwater tank as a source of water. Excludes households that have a rainwater tank installed at the dwelling but do not use the tank as a source of water.

(d) Other includes spring and water delivered in a tanker.

2.12**SOURCES OF WATER IN HOUSEHOLDS (a)**

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
MARCH 2007 (%)									
Mains/town water	95.1	93.9	90.0	93.6	94.6	84.0	91.8	100.0	93.4
Rainwater tank	15.8	16.7	22.1	45.4	13.6	21.4	*5.5	6.7	19.3
Purchased bottled water	18.5	16.8	18.8	22.0	21.6	17.4	11.7	15.1	18.6
Bore/well	3.3	2.2	6.5	6.5	22.8	*3.2	*8.2	—	5.9
River/creek/dam(c)	2.4	3.0	3.2	*1.7	1.8	6.9	—	—	2.7
Rainwater collected in other container	6.5	7.9	5.2	2.0	2.6	2.8	np	np	5.7
Grey water(d)	46.7	71.7	54.1	54.3	43.2	37.0	32.2	63.1	54.5
Other(e)	1.7	*1.3	1.3	0.9	1.5	5.7	np	np	1.5
MARCH 2004 (%)									
Mains/towns water	94.3	93.9	89.0	96.1	94.7	84.9	95.0	100.0	93.2
Rainwater tank	12.8	16.0	17.4	48.2	12.1	19.6	(f)5.3	3.2	17.2
Purchased bottled water	24.8	18.1	16.9	22.0	19.4	16.1	15.3	25.9	20.6
Bore/Well	3.3	1.8	6.9	4.8	22.7	2.6	(f)6.8	(f)0.1	5.7
River/creek/dam	3.0	2.7	3.4	(f)0.8	1.9	6.8	—	—	2.7
Other	1.8	2.6	1.2	1.7	1.1	3.0	(f)0.5	(f)1.3	1.8
MARCH 2001 (%)									
Mains/Town water	95.3	93.1	90.1	94.9	95.6	87.3	96.5	100.0	93.6
Rainwater tank	9.7	13.5	17.5	51.8	10.4	17.2	(f)1.3	(f)2.0	15.7
Purchased bottled water	16.9	14.2	12.6	23.6	18.0	9.1	12.0	10.5	15.7
Bore/Well	2.4	2.0	6.8	4.1	19.9	*2.9	(f)3.8	(f)0.1	5.0
River/Creek/Dam	2.8	5.0	4.9	2.3	1.7	6.1	—	—	3.6
Other	0.6	0.9	1.2	*1.4	(f)0.9	(f)2.0	(f)0.4	(f)0.2	0.9
MARCH 1998 (%)									
Mains/town water	93.0	92.5	89.4	96.1	97.0	87.6	91.9	100.0	92.8
Rainwater tank	12.3	13.9	18.0	53.5	9.8	16.7	(f)5.0	(f)1.2	16.9
Purchased bottled water	10.6	10.4	9.5	20.2	13.7	8.8	9.8	12.9	11.5
Bore/well	2.4	2.5	8.3	2.9	20.6	2.5	(f)9.1	—	5.3
River/Creek/Dam	4.5	3.5	4.4	1.8	1.3	6.2	(f)1.0	—	3.6
Other	1.4	2.0	1.3	1.6	(f)0.6	(f)1.6	—	—	1.4
JUNE 1994 (%)									
Mains/town water	94.4	93.4	88.7	95.4	93.6	86.1	95.4	100.0	93.0
Rainwater tank	9.1	12.6	17.7	48.0	11.2	17.9	(f)2.6	(f)0.9	15.2
Purchased bottled water	2.5	1.3	2.1	9.3	3.5	(f)0.6	(f)1.8	(f)1.3	2.8
Bore	2.2	2.0	7.5	4.4	20.9	2.0	7.5	—	5.1
Other	3.1	2.6	3.9	3.7	3.4	8.6	(f)0.4	(f)0.3	3.3

* estimate is subject to sampling variability too high for most practical purposes

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) The sum of items in each column are greater than 100% as more than one source can be specified.

(b) Northern Territory data refers to mainly urban areas only.

(c) Not available in 1994.

(d) Not available prior to 2007.

(e) Other includes spring and water delivered in tanker.

(f) Estimate is subject to sampling variability too high for most practical purposes.

2.13 HOUSEHOLDS MAIN SOURCE OF WATER FOR GARDENING (a)(b)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)(d)	ACT(d)	Aust.
NUMBER ('000)									
Capital city									
Mains/town water	447.5	421.0	86.2	307.7	353.4	51.0	38.0	65.5	1 770.2
Rainwater tank	68.2	43.8	45.0	33.8	*3.6	np	np	3.6	200.8
Bore/well	*7.0	*4.8	*5.4	12.7	139.6	np	np	—	173.9
River/creek/dam	**4.5	**2.2	*1.7	np	np	**0.6	—	—	*10.9
Rainwater collected in other container	22.2	np	*4.1	np	np	np	—	**0.5	40.2
Grey water	254.4	489.1	233.7	42.6	24.2	8.5	*1.8	24.2	1 078.5
Don't water/rely on rainfall only	318.5	218.5	227.6	41.2	19.7	12.7	8.9	24.1	871.3
Other(a)	*17.3	np	—	np	np	np	—	—	*19.1
Total households	1 139.5	1 193.1	603.8	438.8	542.6	76.9	52.4	117.9	4 164.9
Balance of state/territory									
Mains/town water	421.8	115.5	256.5	82.3	126.2	59.8	—	—	1 062.1
Rainwater tank	64.6	32.9	48.7	14.9	*4.6	np	—	—	171.6
Bore/well	60.6	*22.5	53.0	*16.6	25.6	np	—	—	181.6
River/creek/dam	*25.9	*34.0	22.1	np	np	6.7	—	—	101.4
Rainwater collected in other container	*5.9	np	*4.4	np	np	np	—	—	11.2
Grey water	132.6	244.1	123.7	14.7	8.7	10.7	—	—	534.5
Don't water/rely on rainfall only	176.9	69.8	201.0	12.4	*7.1	21.1	—	—	488.4
Other(a)	**6.7	np	**2.8	np	np	np	—	—	*17.9
Total households	895.0	522.7	712.2	146.7	182.7	109.4	—	—	2 568.7
Total state/territory									
Mains/town water	869.3	536.4	342.7	390.0	479.7	110.8	38.0	65.5	2 832.3
Rainwater tank	132.8	76.7	93.8	48.6	*8.2	np	np	3.6	372.3
Bore/well	67.6	*27.4	58.5	29.3	165.2	np	np	—	355.6
River/creek/dam	30.4	*36.2	23.8	*5.1	*9.5	7.4	—	—	112.3
Rainwater collected in other container	28.1	13.0	8.5	np	np	np	—	**0.5	51.4
Grey water	386.9	733.2	357.4	57.3	32.9	19.1	*1.8	24.2	1 612.9
Don't water/rely on rainfall only	495.4	288.4	428.7	53.6	26.8	33.8	8.9	24.1	1 359.7
Other(a)	*24.0	*4.7	**2.8	np	np	np	—	—	37.0
Total households	2 034.5	1 715.8	1 316.0	585.4	725.3	186.4	52.4	117.9	6 733.6

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes only households which have a garden.

(b) These figures are not directly comparable to those appearing in previous editions (refer to Explanatory Note 17).

(c) Northern Territory data refers mainly to urban areas only.

(d) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

2.13 HOUSEHOLDS MAIN SOURCE OF WATER FOR GARDENING (a)(b)—2007 *continued*

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)(d)	ACT(d)	Aust.
PROPORTION (%)									
Capital city									
Mains/town water	39.3	35.3	14.3	70.1	65.1	66.3	72.5	55.6	42.5
Rainwater tank	6.0	3.7	7.5	7.7	*0.7	np	np	3.0	4.8
Bore/well	*0.6	*0.4	*0.9	2.9	25.7	np	np	—	4.2
River/creek/dam	**0.4	**0.2	*0.3	np	np	**0.8	—	—	*0.3
Rainwater collected in other container	1.9	np	*0.7	np	np	np	—	**0.4	1.0
Grey water	22.3	41.0	38.7	9.7	4.5	11.0	*3.5	20.5	25.9
Don't water/rely on rainfall only	27.9	18.3	37.7	9.4	3.6	16.6	17.0	20.5	20.9
Other(a)	*1.5	np	—	np	np	np	—	—	*0.5
Balance of state/territory									
Mains/town water	47.1	22.1	36.0	56.1	69.1	54.7	—	—	41.3
Rainwater tank	7.2	6.3	6.8	10.1	*2.5	np	—	—	6.7
Bore/well	6.8	*4.3	7.4	*11.3	14.0	np	—	—	7.1
River/creek/dam	*2.9	*6.5	3.1	np	np	6.1	—	—	3.9
Rainwater collected in other container	*0.7	np	*0.6	np	np	np	—	—	0.4
Grey water	14.8	46.7	17.4	10.0	4.8	9.8	—	—	20.8
Don't water/rely on rainfall only	19.8	13.4	28.2	8.5	*3.9	19.3	—	—	19.0
Other(a)	**0.7	np	**0.4	np	np	np	—	—	*0.7
Total state/territory									
Mains/town water	42.7	31.3	26.0	66.6	66.1	59.5	72.5	55.6	42.1
Rainwater tank	6.5	4.5	7.1	8.3	*1.1	np	np	3.0	5.5
Bore/well	3.3	*1.6	4.4	5.0	22.8	np	np	—	5.3
River/creek/dam	1.5	*2.1	1.8	*0.9	*1.3	4.0	—	—	1.7
Rainwater collected in other container	1.4	0.8	0.6	np	np	np	—	**0.4	0.8
Grey water	19.0	42.7	27.2	9.8	4.5	10.3	*3.5	20.5	24.0
Don't water/rely on rainfall only	24.3	16.8	32.6	9.2	3.7	18.2	17.0	20.5	20.2
Other(a)(e)	*1.2	*0.3	**0.2	np	np	np	—	—	0.5

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(a) Includes only households which have a garden.

(b) These figures are not directly comparable to those appearing in previous editions (refer to Explanatory Note 17).

(c) Northern Territory data refers mainly to urban areas only.

(d) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

(e) Includes spring and water delivered in a tanker

2.14 HOUSEHOLDS MAIN SOURCE OF WATER FOR BATHING OR SHOWERING—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a) (b)	ACT(b)	Aust.
NUMBER ('000)									
Capital city									
Mains/town water	1 628.8	1 390.8	692.6	466.5	591.8	74.5	56.1	128.7	5 029.7
Rainwater tank	**5.8	**14.6	*20.6	*12.3	*10.2	*8.0	**0.7	—	72.1
River/creek/dam	—	—	—	—	—	—	—	—	—
Bore/well	—	—	np	np	np	np	np	—	*10.7
Other(c)	**2.9	**2.6	np	np	np	np	np	—	*12.2
Total households	1 637.5	1 408.0	718.6	480.6	607.3	82.8	61.4	128.7	5 124.8
Balance of state/territory									
Mains/town water	896.0	460.1	689.1	122.6	166.5	92.3	—	—	2 426.6
Rainwater tank	117.9	97.1	115.3	40.3	22.6	16.0	—	—	409.3
River/creek/dam	*3.1	*6.9	*6.9	*4.0	*2.7	*3.1	—	—	*26.7
Bore/well	*11.6	*5.6	np	np	np	np	—	—	57.9
Other(c)	*6.2	**7.0	np	np	np	np	—	—	*20.5
Total households	1 034.9	576.7	844.4	170.6	198.2	116.3	—	—	2 941.1
Total state/territory									
Mains/town water	2 524.8	1 850.8	1 381.7	589.1	758.3	166.8	56.1	128.7	7 456.3
Rainwater tank	123.7	111.8	135.9	52.6	32.8	24.0	**0.7	—	481.4
River/creek/dam	*3.1	*6.9	*6.9	*4.0	*2.7	*3.1	—	—	*26.7
Bore/well	*11.6	*5.6	28.7	np	*10.1	*3.4	np	—	68.6
Other(c)	*9.0	*9.7	*9.8	np	*1.6	*1.9	np	—	32.8
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9

PROPORTION (%)

Capital city									
Mains/town water	99.5	98.8	96.4	97.1	97.4	89.9	91.5	100.0	98.1
Rainwater tank	**0.4	**1.0	*2.9	*2.6	*1.7	*9.6	**1.1	—	1.4
River/creek/dam	—	—	—	—	—	—	—	—	—
Bore/well	—	—	np	np	np	np	np	—	*0.2
Other(c)	**0.2	**0.2	np	np	np	np	np	—	*0.2
Balance of state/territory									
Mains/town water	86.6	79.8	81.6	71.9	84.0	79.4	—	—	82.5
Rainwater tank	11.4	16.8	13.7	23.7	11.4	13.8	—	—	13.9
River/creek/dam	*0.3	*1.2	*0.8	*2.3	*1.4	*2.6	—	—	*0.9
Bore/well	*1.1	*1.0	np	np	np	np	—	—	2.0
Other(c)	*0.6	**1.2	np	np	np	np	—	—	*0.7
Total state/territory									
Mains/town water	94.5	93.3	88.4	90.5	94.1	83.8	91.5	100.0	92.4
Rainwater tank	4.6	5.6	8.7	8.1	4.1	12.1	**1.1	—	6.0
River/creek/dam	*0.1	*0.3	*0.4	*0.6	*0.3	*1.5	—	—	*0.3
Bore/well	*0.4	*0.3	1.8	np	*1.3	*1.7	np	—	0.9
Other(c)	*0.3	*0.5	*0.6	np	*0.2	*0.9	np	—	0.4

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** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

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(a) Northern Territory data refers to mainly urban areas only.

(b) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

(c) Includes no bathroom at dwelling, water delivered in tanker, spring and rainwater collected in container other than water tank.

2.15**HOUSEHOLDS MAIN SOURCE OF WATER FOR WASHING CLOTHES (a)—2007**

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
NUMBER ('000)									
Capital city									
Mains/town water	1 535.2	1 336.2	673.4	452.9	576.1	73.1	54.5	127.0	4 828.4
Rainwater tank	*10.3	*15.7	*22.3	*16.4	*9.8	*8.0	**0.7	—	83.2
Bore/well	np	—	np	np	np	np	**4.1	—	np
River/creek/dam	—	—	np	—	—	—	—	—	np
Other (d)	np	10.6	*4.2	np	np	np	—	—	32.6
No laundry/washing machine at dwelling(e)	75.3	45.6	17.3	8.9	*16.3	*1.2	*2.1	**1.6	168.4
Total households	1 637.5	1 408.0	718.6	480.6	607.3	82.8	61.4	128.7	5 124.8
Balance of state/territory									
Mains/town water	859.4	451.4	674.2	118.7	164.5	90.8	—	—	2 359.1
Rainwater tank	112.8	91.8	109.8	39.9	21.8	16.2	—	—	392.3
Bore/well	np	*7.7	np	np	np	np	—	—	np
River/creek/dam	**2.4	*6.8	np	*4.5	*2.7	*3.1	—	—	np
Other(d)	np	*11.2	**6.5	np	np	np	—	—	28.6
No laundry/washing machine at dwelling(e)	**35.0	*7.9	*13.9	*2.8	*3.0	*1.4	—	—	*64.0
Total households	1 034.9	576.7	844.4	170.6	198.2	116.3	—	—	2 941.1
Total state/territory									
Mains/town water	2 394.6	1 787.6	1 347.7	571.7	740.7	163.9	54.5	127.0	7 187.5
Rainwater tank	123.1	107.5	132.1	56.3	31.6	24.1	**0.7	—	475.5
Bore/well	17.3	*7.7	33.6	np	*9.6	np	**4.1	—	82.1
River/creek/dam	**2.4	*6.8	*7.7	*4.5	*2.7	*3.1	—	—	27.2
Other (d)	24.7	21.8	*10.7	np	*1.6	np	—	—	61.2
No laundry/washing machine at dwelling(e)	110.3	53.4	31.2	11.8	19.3	*2.6	*2.1	**1.6	232.4
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Where a dwelling with a laundry or washing machine had only one source of water, it was assumed that clothes were washed at dwelling using this water source.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regionals split between capital city and balance of state/territory for the NT and ACT as sample does not support any breakdown beyond the whole territory.

(d) Includes spring, water delivered in tanker, rainwater collected in containers other than rainwater tank and grey water.

(e) Includes clothes not washed at dwelling.

2.15 HOUSEHOLDS MAIN SOURCE OF WATER FOR WASHING CLOTHES (a)—2007

continued

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
PROPORTION (%)									
Capital city									
Mains/town water	93.8	94.9	93.7	94.2	94.9	88.3	88.7	98.7	94.2
Rainwater tank	*0.6	*1.1	*3.1	*3.4	*1.6	*9.6	**1.1	—	1.6
Bore/well	np	—	np	np	np	np	**6.7	—	np
River/creek/dam	—	—	np	—	—	—	—	—	np
Other (d)	np	0.8	*0.6	np	np	np	—	—	0.6
No laundry/washing machine at dwelling(e)	4.6	3.2	2.4	1.9	*2.7	*1.4	*3.5	**1.3	3.3
Balance of state/territory									
Mains/town water	83.0	78.3	79.8	69.6	83.0	78.0	—	—	80.2
Rainwater tank	10.9	15.9	13.0	23.4	11.0	13.9	—	—	13.3
Bore/well	np	*1.3	np	np	np	np	—	—	np
River/creek/dam	**0.2	*1.2	np	*2.6	*1.4	*2.7	—	—	np
Other (d)	np	*1.9	**0.8	np	np	np	—	—	1.0
No laundry/washing machine at dwelling(e)	**3.4	*1.4	*1.6	*1.7	*1.5	*1.2	—	—	*2.2
Total state/territory									
Mains/town water	89.6	90.1	86.2	87.8	91.9	82.3	88.7	98.7	89.1
Rainwater tank	4.6	5.4	8.5	8.6	3.9	12.1	**1.1	—	5.9
Bore/well	0.6	*0.4	2.1	*np	*1.2	np	**6.7	—	1.0
River/creek/dam	**0.1	*0.3	*0.5	*0.7	*0.3	*1.6	—	—	0.3
Other (d)	0.9	1.1	0.7	**np	*0.2	np	—	—	0.8
No laundry/washing machine at dwelling(e)	4.1	2.7	2.0	1.8	2.4	*1.3	*3.5	**1.3	2.9

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** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Where a dwelling with a laundry or washing machine had only one source of water, it was assumed that clothes were washed at dwelling using this water source.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regionals split between capital city and balance of state/territory for the NT and ACT as sample does not support any breakdown beyond the whole territory.

(d) Includes spring, water delivered in tanker, rainwater collected in containers other than rainwater tank and grey water.

(e) Includes clothes not washed at dwelling.

2.16 HOUSEHOLDS MAIN SOURCE OF WATER FOR FLUSHING TOILETS — 2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
NUMBER ('000)									
Mains/town water	2 494.4	1 833.4	1 380.4	601.8	757.8	165.7	56.3	128.3	7 418.1
Rainwater tank	103.4	76.2	114.9	25.7	np	20.5	**0.7	np	365.9
Bore/well	29.4	*21.2	39.1	*16.2	*12.2	*4.5	**4.3	—	126.9
River/creek/dam	*9.6	*23.0	*11.8	*5.7	*6.6	*5.2	—	—	*61.8
Grey water	11.9	20.9	*4.0	**1.0	*2.0	np	—	np	40.1
Other(a)	*17.9	*6.8	**4.3	np	*2.0	np	—	—	33.2
No flushing toilets at dwelling	*5.8	**3.3	*8.5	np	np	**1.1	—	np	19.7
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
PROPORTION (%)									
Mains/town water	93.3	92.4	88.3	92.4	94.1	83.2	91.8	99.7	92.0
Rainwater tank	3.9	3.8	7.4	3.9	np	10.3	**1.1	np	4.5
Bore/well	1.1	*1.1	2.5	*2.5	*1.5	*2.3	**7.1	—	1.6
River/creek/dam	*0.4	*1.2	*0.8	*0.9	*0.8	*2.6	—	—	*0.8
Grey water	0.4	1.1	*0.3	**0.2	*0.3	np	—	np	0.5
Other(a)	*0.7	*0.3	**0.3	np	*0.3	np	—	—	0.4
No flushing toilets at dwelling	*0.2	**0.2	*0.5	np	np	**0.5	—	np	0.2

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(a) Includes spring, water delivered in tanker and rainwater collected in container other than water tank.

2.17 HOUSEHOLDS MAIN SOURCE OF WATER FOR DRINKING—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)(b)	ACT(b)	Aust.
NUMBER ('000)									
Capital city									
Mains/town water	1 509.2	1 314.4	625.8	357.9	527.1	71.5	53.5	122.3	4 581.8
Rainwater tank	**6.6	np	*23.9	51.0	21.2	*7.4	np	np	127.3
Purchased bottled water	119.5	77.5	66.6	68.8	54.3	3.9	np	np	399.3
Bore/well	—	—	—	np	np	—	**3.6	—	*7.0
Other(c)	**2.1	np	*2.2	np	np	—	—	—	9.5
<i>Total households</i>	<i>1 637.5</i>	<i>1 408.0</i>	<i>718.6</i>	<i>480.6</i>	<i>607.3</i>	<i>82.8</i>	<i>61.4</i>	<i>128.7</i>	<i>5 124.8</i>
Balance of state/territory									
Mains/town water	740.7	360.0	572.8	56.8	124.0	78.3	—	—	1 932.6
Rainwater tank	189.8	np	181.9	92.5	52.7	22.3	—	—	686.0
Purchased bottled water	96.0	62.9	65.2	18.6	18.2	8.7	—	—	269.5
Bore/well	**3.3	**2.7	*13.5	np	np	*2.7	—	—	23.5
Other(c)	*5.2	np	*11.0	np	np	*4.3	—	—	29.5
<i>Total households</i>	<i>1 034.9</i>	<i>576.7</i>	<i>844.4</i>	<i>170.6</i>	<i>198.2</i>	<i>116.3</i>	<i>—</i>	<i>—</i>	<i>2 941.1</i>
Total state/territory									
Mains/town water	2 249.9	1 674.4	1 198.7	414.7	651.1	149.8	53.5	122.3	6 514.4
Rainwater tank	196.3	162.0	205.8	143.5	73.9	29.6	np	np	813.3
Purchased bottled water	215.5	140.4	131.8	87.4	72.5	12.7	np	np	668.8
Bore/well	**3.3	**2.7	*13.5	**0.8	*3.9	*2.7	**3.6	—	30.5
Other(c)	*7.3	*5.2	*13.2	*4.8	*4.2	*4.3	—	—	38.9
<i>Total households</i>	<i>2 672.3</i>	<i>1 984.8</i>	<i>1 563.0</i>	<i>651.1</i>	<i>805.5</i>	<i>199.1</i>	<i>61.4</i>	<i>128.7</i>	<i>8 065.9</i>

PROPORTION (%)

Capital city									
Mains/town water	92.2	93.3	87.1	74.5	86.8	86.3	87.3	95.0	89.4
Rainwater tank	**0.4	np	*3.3	10.6	3.5	*8.9	np	np	2.5
Purchased bottled water	7.3	5.5	9.3	14.3	8.9	4.8	np	np	7.8
Bore/well	—	—	—	np	np	—	**5.9	—	*0.1
Other(c)	**0.1	np	*0.3	np	np	—	—	—	0.2
Balance of state/territory									
Mains/town water	71.6	62.4	67.8	33.3	62.6	67.4	—	—	65.7
Rainwater tank	18.3	np	21.5	54.2	26.6	19.2	—	—	23.3
Purchased bottled water	9.3	10.9	7.7	10.9	9.2	7.5	—	—	9.2
Bore/well	**0.3	**0.5	*1.6	np	np	*2.3	—	—	0.8
Other(c)	*0.5	np	*1.3	np	np	*3.7	—	—	1.0
Total state/territory									
Mains/town water	84.2	84.4	76.7	63.7	80.8	75.3	87.3	95.0	80.8
Rainwater tank	7.3	8.2	13.2	22.0	9.2	14.9	np	np	10.1
Purchased bottled water	8.1	7.1	8.4	13.4	9.0	6.4	np	np	8.3
Bore/well	**0.1	**0.1	*0.9	**0.1	*0.5	*1.3	**5.9	—	0.4
Other(c)	*0.3	*0.3	*0.8	*0.7	*0.5	*2.2	—	—	0.5

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(a) Northern Territory data refers to mainly urban areas only.

(b) No regional split between capital city and balance of state/territory for the NT and ACT as the sample does not support any breakdown beyond the whole territory.

(c) Includes spring, river/creek/dam, water delivered in tanker and rainwater collected in container other than water tank.

2.18**HOUSEHOLDS MAIN SOURCE OF WATER FOR DRINKING**

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2007 (%)									
Mains/town water	84.2	84.4	76.7	63.7	80.8	75.3	87.3	95.0	80.8
Rainwater tank	7.3	8.2	13.2	22.0	9.2	14.9	np	np	10.1
Purchased bottled water	8.1	7.1	8.4	13.4	9.0	6.4	np	np	8.3
Bore/well	**0.1	**0.1	*0.9	**0.1	*0.5	*1.3	**5.9	—	0.4
Other(b)	*0.3	*0.3	*0.8	*0.7	*0.5	*2.2	—	—	0.5

MARCH 2004 (%)									
Mains/towns water	82.4	83.6	79.3	60.1	82.3	76.9	89.4	93.2	80.3
Rainwater tank	8.3	9.9	14.1	26.3	8.7	15.6	(c)2.2	(c)0.3	11.3
Purchased bottled water	8.8	5.9	5.7	13.0	7.9	5.4	(c)4.3	6.4	7.6
Bore/well	(c)0.2	(c)0.1	(c)0.6	(c)0.1	(c)0.7	(c)0.8	(c)3.7	—	0.3
Other(d)	(c)0.3	(c)0.5	(c)0.4	(c)0.5	(c)0.4	(c)1.2	(c)0.5	(c)0.1	0.4

MARCH 2001 (%)									
Mains/town water	85.0	83.7	79.4	49.9	84.1	80.9	93.3	97.2	80.7
Rainwater tank	7.1	10.5	13.9	33.1	7.3	13.6	(c)1.3	(c)0.5	11.4
Purchased bottled water	7.5	5.4	4.7	16.0	7.4	3.7	(c)2.2	(c)2.3	6.9
Bore/Well	(c)0.1	(c)0.1	1.3	(c)0.2	(c)0.8	(c)1.0	(c)3.2	—	0.4
Other	(c)0.3	(c)0.3	(c)0.8	(c)0.7	(c)0.5	(c)0.9	—	—	0.5

MARCH 1998 (%)									
Mains/towns water	84.6	83.9	78.5	47.3	86.2	80.8	89.8	96.4	80.4
Rainwater tank	10.1	11.6	15.6	37.6	6.5	14.2	(c)3.4	(c)0.2	13.3
Purchased bottled water	4.7	3.6	3.6	13.7	6.6	2.9	(c)0.9	(c)3.4	5.1
Other	(c)0.6	(c)1.0	(c)2.4	(c)1.4	(c)0.7	(c)2.1	(c)6.0	—	1.1

MARCH 1994 (%)									
Mains/town water	89.8	87.6	81.3	53.3	85.8	81.5	92.9	99.1	84.1
Rainwater tank	7.7	11.0	15.6	36.7	8.8	14.9	(c)1.6	—	12.6
Purchased bottled water	1.9	0.7	1.6	7.9	2.9	(c)0.1	(c)1.3	(c)0.9	2.1
Other	0.5	0.7	1.5	2.1	2.6	3.4	(c)4.1	—	1.2

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(a) Northern Territory data refers to mainly urban areas only.

(b) Includes spring, river/creek/dam, water delivered in tanker and rainwater collected in container other than rainwater tank.

(c) Estimate is subject to sampling variability too high for most practical purposes.

(d) Includes spring and river/creek/dam.

2.19 HOUSEHOLDS USE OF WATER FILTERS FOR DRINKING WATER(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
MARCH 2007									
Number ('000)									
Used water filter	685.3	414.4	484.5	216.3	246.6	42.9	8.3	18.2	2 116.5
Did not use water filter	1 771.5	1 429.9	946.7	347.5	486.5	143.5	50.7	104.3	5 280.6
Total households	2 456.8	1 844.4	1 431.2	563.8	733.1	186.4	59.0	122.5	7 397.1
Proportion (%)									
Used water filter	27.9	22.5	33.8	38.4	33.6	23.0	14.1	14.8	28.6
Did not use water filter	72.1	77.5	66.2	61.6	66.4	77.0	85.9	85.2	71.4
MARCH 2004									
Proportion (%)									
Used water filter	25.9	22.4	27.4	30.2	29.0	20.8	8.3	12.6	25.5
Did not use water filter	74.1	77.6	72.6	69.8	71.0	79.2	91.7	87.4	74.5
MARCH 2001									
Proportion (%)									
Used water filter	20.2	18.8	24.0	22.7	23.6	18.9	11.9	11.8	20.9
Did not use water filter	79.8	81.2	76.0	77.3	76.4	81.1	88.1	88.2	79.1
MARCH 1998									
Proportion (%)									
Used water filter	19.2	16.2	20.1	17.1	20.5	14.1	12.4	9.5	18.2
Did not use water filter	80.8	83.8	79.9	82.9	79.5	85.9	87.6	90.5	81.8

(a) Excludes households that mainly drink bottled water.

(b) Northern Territory data refers to mainly urban areas only.

2.20**HOUSEHOLDS WITH MAINS/TOWN WATER, Satisfaction with quality of water—2007**

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)(b)	ACT(b)	Aust.
NUMBER ('000)									
Capital city									
Satisfied	1 334.5	1 220.3	542.3	318.2	431.8	62.8	49.0	112.9	4 071.9
Not satisfied	236.0	140.6	138.6	119.3	147.0	10.2	5.8	13.7	811.1
Don't drink mains tap water	40.7	23.9	15.4	26.1	np	np	np	np	119.5
Don't know	19.7	8.2	*4.8	4.9	np	np	np	np	44.0
Total households	1 630.9	1 392.9	701.1	468.5	593.6	74.5	56.3	128.7	5 046.5
Balance of state/territory									
Satisfied	644.6	322.3	523.8	74.4	110.3	67.9	—	—	1 743.3
Not satisfied	207.9	115.0	149.1	38.3	47.6	22.0	—	—	579.8
Don't drink mains tap water	52.5	27.5	27.1	26.7	np	np	—	—	144.9
Don't know	*5.7	*5.4	*5.0	**1.7	np	np	—	—	19.9
Total households	910.7	470.3	704.9	141.0	168.3	92.7	—	—	2 487.9
Total state/territory									
Satisfied	1 979.1	1 542.6	1 066.1	392.6	542.1	130.6	49.0	112.9	5 815.1
Not satisfied	443.9	255.5	287.7	157.5	194.6	32.1	5.8	13.7	1 390.9
Don't drink mains tap water	93.2	51.4	42.5	52.8	18.6	*3.7	np	np	264.4
Don't know	25.4	13.6	9.7	6.6	6.6	**0.7	np	np	63.9
Total households	2 541.6	1 863.2	1 406.1	609.5	761.8	167.2	56.3	128.7	7 534.4
PROPORTION (%)									
Capital city									
Satisfied	81.8	87.6	77.3	67.9	72.7	84.3	87.0	87.8	80.7
Not satisfied	14.5	10.1	19.8	25.5	24.8	13.6	10.2	10.6	16.1
Don't drink mains tap water	2.5	1.7	2.2	5.6	np	np	np	np	2.4
Don't know	1.2	0.6	*0.7	1.1	np	np	np	np	0.9
Balance of state/territory									
Satisfied	70.8	68.5	74.3	52.7	65.6	73.2	—	—	70.1
Not satisfied	22.8	24.4	21.2	27.1	28.3	23.7	—	—	23.3
Don't drink mains tap water	5.8	5.9	3.8	18.9	np	np	—	—	5.8
Don't know	*0.6	*1.2	*0.7	**1.2	np	np	—	—	0.8
Total state/territory									
Satisfied	77.9	82.8	75.8	64.4	71.2	78.2	87.0	87.8	77.2
Not satisfied	17.5	13.7	20.5	25.8	25.5	19.2	10.2	10.6	18.5
Don't drink mains tap water	3.7	2.8	3.0	8.7	2.4	*2.2	np	np	3.5
Don't know	1.0	0.7	0.7	1.1	0.9	**0.4	np	np	0.8

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(b) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

2.21 HOUSEHOLDS WITH PROBLEMS WITH THE QUALITY OF THE MAINS/TOWN WATER (a)(b)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
NUMBER ('000)									
Salty	*6.8	*6.9	**2.3	6.3	6.3	np	np	—	29.4
Other taste	243.0	149.5	193.6	126.5	119.6	16.2	*2.7	5.3	856.4
Colour	86.6	44.8	35.3	14.7	20.4	9.8	*1.5	*1.2	214.4
Chlorine	120.3	85.2	88.2	49.8	64.9	12.9	*1.7	3.9	426.8
Dirty	93.2	34.9	41.4	23.7	15.9	6.8	**0.4	*3.4	219.7
Odour	63.2	31.2	36.1	30.5	26.9	*7.7	**1.1	2.8	199.5
Microbial/algae contamination	71.0	17.0	21.9	11.7	14.3	*3.6	*0.7	*1.6	141.9
Other chemicals in water	20.5	11.6	np	*4.4	13.1	*1.8	*0.9	np	60.0
Other	29.7	12.6	15.6	7.9	8.1	*1.0	np	np	76.2
Prefer other source of water	13.5	11.5	np	22.9	7.7	np	—	—	68.4
Total households(d)	537.1	307.0	330.3	210.3	213.1	35.8	6.6	15.1	1 655.4
PROPORTION (%)									
Salty	*1.3	*2.3	**0.7	3.0	3.0	np	np	—	1.8
Other taste	45.2	48.7	58.6	60.1	56.1	45.3	40.8	35.2	51.7
Colour	16.1	14.6	10.7	7.0	9.6	27.2	*23.3	*8.2	12.9
Chlorine	22.4	27.7	26.7	23.7	30.4	35.9	*26.1	25.7	25.8
Dirty	17.4	11.4	12.5	11.3	7.5	19.1	**6.2	22.7	13.3
Odour	11.8	10.2	10.9	14.5	12.6	21.4	**17.1	18.6	12.1
Microbial/algae contamination	13.2	5.5	6.6	5.6	6.7	*10.0	**10.9	*10.7	8.6
Other chemicals in water	3.8	3.8	np	*2.1	6.1	*5.1	*12.9	np	3.6
Other	5.5	4.1	4.7	3.7	3.8	*2.8	np	np	4.6
Prefer other source of water	2.5	3.7	np	10.9	3.6	np	—	—	4.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes households who are unsatisfied with the quality of the mains water and households who don't drink the mains water.

(b) These figures are not comparable to those appearing in previous editions (refer to Explanatory Note 18).

(c) Northern Territory data refers to mainly urban areas only.

(d) Totals do not equal the sum of the items in each column as more than one problem can be specified.

2.22 HOUSEHOLDS WITH MAINS/TOWN WATER, Problems with supply(a)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER ('000)									
No water supply problems	2 187.9	1 610.6	1 171.9	508.1	620.6	138.9	45.4	112.8	6 396.2
Inadequate or low pressure	177.3	94.1	116.1	47.2	66.9	14.7	*3.4	5.7	525.3
Fluctuating pressure	95.5	56.5	75.8	33.7	41.9	10.0	*3.2	3.8	320.4
Supply disruptions	134.1	123.6	69.5	27.0	57.9	7.8	*3.5	4.3	427.6
Other problems with water supply	*13.0	13.6	13.3	6.8	6.1	np	np	3.2	58.9
Don't know	*13.7	15.2	*9.9	*4.6	*5.1	np	np	**0.6	49.7
Total households	2 541.6	1 863.2	1 406.1	609.5	761.8	167.2	56.3	128.7	7 534.4
PROPORTION (%)									
No water supply problems	86.1	86.4	83.3	83.4	81.5	83.1	80.6	87.7	84.9
Inadequate or low pressure	7.0	5.1	8.3	7.7	8.8	8.8	6.0	4.4	7.0
Fluctuating pressure	3.8	3.0	5.4	5.5	5.5	6.0	*5.7	2.9	4.3
Supply disruptions	5.3	6.6	4.9	4.4	7.6	4.6	*6.2	3.3	5.7
Other problems with water supply	*0.5	0.7	0.9	1.1	0.8	np	np	2.5	0.8
Don't know	*0.5	0.8	*0.7	*0.7	*0.7	np	np	**0.4	0.7

* estimate has a relative standard error of 25% to 50% and should be used with caution np not available for publication but included in totals where applicable, unless otherwise indicated

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use (a) Refers to problems in the last 12 months.
(b) Northern Territory data refers mainly urban areas only.

INTRODUCTION

This chapter looks in more detail at rainwater tanks and Australian households. It discusses the number households that reported rainwater as a source of water, how many households have a rainwater tank installed at their dwelling, why households have installed a rainwater tank and the factors preventing the installation of a rainwater tank.

Rainwater as a source of water

In 2007, 19.3%, or slightly more than 1.5 million households, reported a rainwater tank as a source of water (table 3.6 and graph 3.1). This was an increase from 17.2% in March 2004 and 15.2% in June 1994.

In March 2007, South Australia had the highest proportion (45.4%) of households reporting a rainwater tank as a source of water for the household. The South Australian figure was more than twice the second highest state, Queensland, where 22.1% of households reported a rainwater tank as a source of water.

3.1 RAINWATER TANKS AS A SOURCE OF WATER FOR HOUSEHOLDS (a): 1994 to 2007



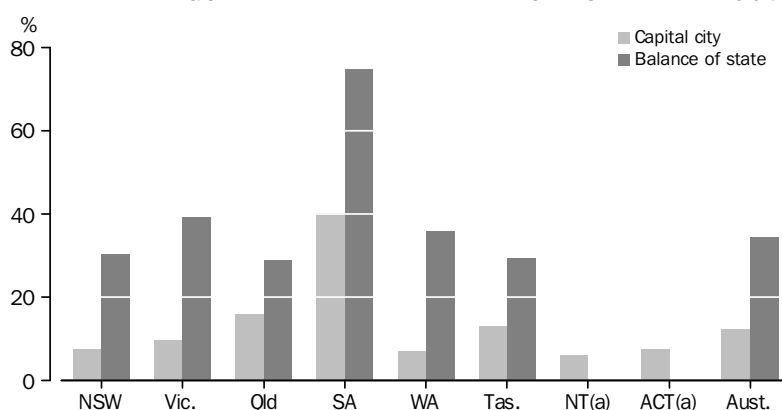
(a) Data sourced from table 3.6, see table for notes about data limitations.

The state with the largest percentage point increase of households reporting rainwater tanks as a source of water was New South Wales, which rose from 9.1% (196,000) in 1994 to 15.8% (421,400) in 2007. The Australian Capital Territory recorded the second biggest percentage point rise, from 0.9% in 1994 to 6.7% in 2007. Interestingly, the proportion of households who reported rainwater tanks as a source of water in South Australia dropped over the same time period from 48.0% in 1994 to 45.4% in 2007.

Rainwater tanks installed

In 2007, over one-fifth (20.6% or nearly 1.7 million) of all households reported that their dwelling had a rainwater tank. A greater proportion of dwellings in areas outside capital cities had a rainwater tank (34.7%) compared to those in capital cities (12.5%). Of dwellings in capital cities, 17.4% were not suitable for a rainwater tank compared to 8.7% in areas outside of capital cities. South Australia had by far the highest proportion of households reporting that their dwelling had a rainwater tanks 40.2% of dwellings in Adelaide and 74.7% in the balance of the state. The Australian Capital Territory and the Northern Territory had the lowest proportion of households with rainwater tanks installed, 7.6% and 6.0% respectively (table 3.7 and graph 3.2).

3.2 DWELLINGS WITH RAINWATER TANKS INSTALLED: 2007

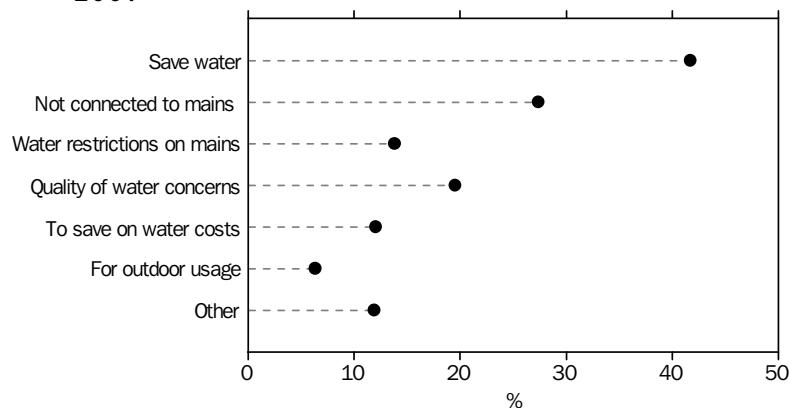


(a) NT and ACT data refers to whole of territories.

Reasons why rainwater tanks were installed

Saving water was the main reason (41.7% or 455,400) reported by Australian households as to why they had installed a rainwater tank (table 3.9 and graph 3.3). There were 297,300 households (27.3%) that reported installing a rainwater tank because they were not connected to mains or town water and 19.5% of households reported a concern about the quality of other sources of water or they just preferred rainwater. Only 12.0% of households reported that they installed a rainwater tank to save on water costs, 6.3% households installed a rainwater tank specifically for outside water usage.

3.3 REASONS WHY HOUSEHOLDS INSTALLED A WATER TANK(a): 2007



(a) Data sourced from table 3.9, see table for notes about data limitations.

Reasons why rainwater tanks were installed continued

In the Australian Capital Territory, 62.3% of households who installed a rainwater tank reported that they did so to save water, the greatest proportion of all states and territories. The Australian Capital Territory also had the highest proportion of households reporting that they installed a rainwater tank due to water restrictions on the mains or town water (42.3%). This was much greater than the national figure of 13.8%. Queensland (18.8%), Victoria (16.3%) and New South Wales (16.1%) also recorded high proportions.

In Tasmania, only 24.0% of households reported the reason for installing a rainwater tank was to save water. However, 53.6% of households in Tasmania reported that they installed a rainwater tank because they were not connected to the mains/town water. This figure was especially high in Hobart, where 70.7% of households who had installed a rainwater tank did so because they were not connected to the mains/town water. Outside of Hobart, this figure fell to 47.8%.

The most commonly reported reasons for installing a rainwater tank differed markedly between the capital cities and the balance of the states. In the capital cities, the most commonly reported reason for installing a rainwater tank was to save water (except in Tasmania). In the rest of the states (except South Australia), the most common reason reported was that dwellings were not connected to mains water. This is not surprising given that households in the capital cities were more likely to be connected to mains/town water.

Attributes of households that have rainwater tanks

Of all the dwellings owned outright by the occupant, 30.4% of households reported that their dwelling had a rainwater tank installed compared with only 12.7% of rented dwellings (table 3.10). Over one-quarter (25.9%) of separate houses had rainwater tanks installed, as opposed to only 6.2% of semi-detached or townhouses. Nearly one-quarter (24.9%) of family households had a rainwater tank installed compared with only 13.2% of group households.

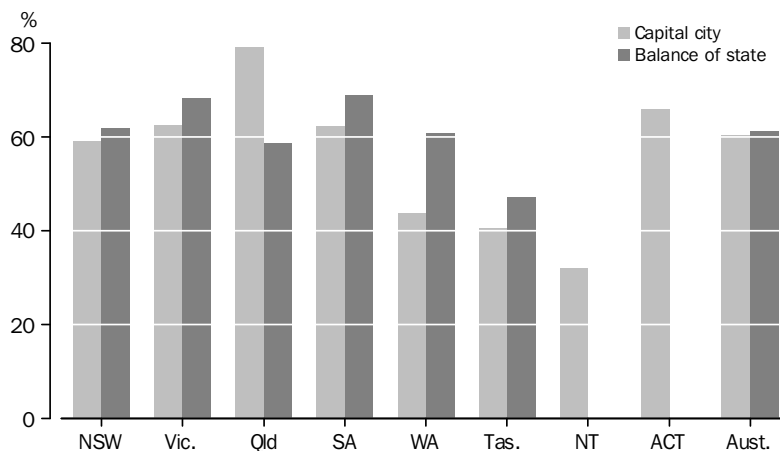
Households that have considered installing a rainwater tank

Of the 3,941,300 Australian households who were owner occupiers or purchasers that did not have a rainwater tank installed but whose dwelling was suitable for a rainwater tank, 60.8% had considered installing one (table 3.11). Queensland and the Australian Capital Territory had the highest proportions (68.8% and 66.1% respectively). Victoria (63.8%) and South Australia (63.1%) also recorded greater proportions of households who had considered installing a rainwater tank than the national figure of 60.8% (table 3.11 and graph 3.4). This could reflect the drought conditions and the water restrictions imposed in these areas.

In all states except Queensland, a greater proportion of households outside the capital cities had considered installing a rainwater tank than in the capital cities. In Queensland however, 79.1% of households in Brisbane had considered installing a rainwater tank, as opposed to only 58.6% outside of the capital. This again could reflect the water restrictions in place in southeast Queensland.

Households that have considered installing a rainwater tank continued

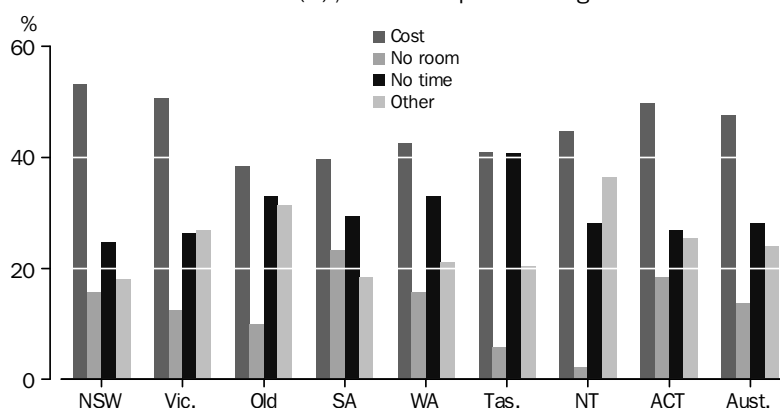
3.4 HOUSEHOLDS WITHOUT A RAINWATER TANK, Had considered installing a tank: 2007



Factors preventing the installation of a rainwater tank

Of the 2,394,900 households who were home owners or purchasers in March 2007 with dwellings suitable for a rainwater tank and who had considered installing a rainwater tank, the most common reason reported that prevented installing a rainwater tank was cost (47.5%) (table 3.12 and graph 3.5). No time or planned but have not got round to it was the next most common reason for why a tank had not been installed at the dwelling (28.2%) followed by no room (13.7%). In March 2007, 3.2% of households (76,000) had ordered a rainwater tank but were awaiting delivery and installation. Of those, 35,300 were from Queensland. This translates to 7.3% of Queensland households. Victoria had the second highest proportion for tanks ordered but were waiting delivery at 3.1% of households.

3.5 HOUSEHOLDS THAT HAVE CONSIDERED INSTALLING A RAINWATER TANK(a), Factors preventing: 2007



(a)Data sourced from table 3.12, please see table for notes about data limitations

3.6 RAINWATER TANK AS A SOURCE OF WATER FOR HOUSEHOLDS (a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
MARCH 2007									
Number ('000)									
Rainwater tank	421.4	332.4	345.7	295.7	109.6	42.7	*3.4	8.6	1 559.4
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
Proportion (%)									
Rainwater tank	15.8	16.7	22.1	45.4	13.6	21.4	*5.5	6.7	19.3
MARCH 2004									
Number ('000)									
Rainwater tank	329.5	305.4	261.0	305.0	94.3	38.7	(c)2.9	4.0	1 340.7
Total households	2 574.8	1 911.1	1 498.1	633.1	782.0	197.3	55.0	124.0	7 775.4
Proportion (%)									
Rainwater tank	12.8	16.0	17.4	48.2	12.1	19.6	(c)5.3	3.2	17.2
MARCH 2001									
Number ('000)									
Rainwater tank	236.0	244.7	243.9	318.7	76.2	32.8	(c)0.7	(c)2.5	1 155.5
Total households	2 423.3	1 806.9	1 397.5	615.2	731.9	190.8	57.0	121.5	7 344.1
Proportion (%)									
Rainwater tank	9.7	13.5	17.5	51.8	10.4	17.2	(c)1.3	(c)2.0	15.7
MARCH 1998									
Number ('000)									
Rainwater tank	288.7	239.7	230.4	318.0	67.8	31.1	(c)2.8	(c)1.4	1 180.0
Total households	2 353.6	1 722.8	1 281.3	594.3	688.9	186.7	56.4	115.8	6 999.7
Proportion (%)									
Rainwater tank	12.3	13.9	18.0	53.5	9.8	16.7	(c)5.0	(c)1.2	16.9
JUNE 1994									
Number ('000)									
Rainwater tank	196.0	203.1	202.2	272.2	68.5	32.2	(c)1.2	(c)1.0	976.4
Total households	2 157.7	1 606.4	1 142.7	567.3	610.6	179.9	46.2	103.6	6 414.5
Proportion (%)									
Rainwater tank	9.1	12.6	17.7	48.0	11.2	17.9	(c)2.6	(c)0.9	15.2

* estimate has a relative standard error of 25% to 50% and should be used with caution

- (a) Includes households that use a rainwater tank as a source of water, regardless of whether or not a rainwater tank was installed at the dwelling. Excludes households that had a rainwater tank installed at the dwelling but that did not report a rainwater tank as a source of water for the household.
- (b) Northern Territory data refers mainly to urban areas only.
- (c) Estimate is subject to sampling variability too high for most practical purposes.

3.7 HOUSEHOLDS WITH RAINWATER TANK INSTALLED AT DWELLING (a)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
NUMBER ('000)									
Capital city									
Dwelling has rainwater tank	125.2	136.8	115.2	193.3	44.0	10.9	*3.7	9.7	638.8
Dwelling does not have rainwater tank	1 085.0	1 041.9	511.1	240.6	496.1	63.9	46.2	109.0	3 593.9
Dwelling not suitable for rainwater tank	427.2	229.3	92.3	46.8	67.1	8.0	11.5	9.9	892.0
<i>Total households</i>	1 637.5	1 408.0	718.6	480.6	607.3	82.8	61.4	128.7	5 124.8
Balance of state/territory									
Dwelling has rainwater tank	315.6	227.2	244.5	127.5	71.0	34.1	—	—	1 019.8
Dwelling does not have rainwater tank	627.2	293.5	521.5	34.6	115.5	73.4	—	—	1 665.6
Dwelling not suitable for rainwater tank	92.1	56.1	78.4	*8.5	*11.8	8.9	—	—	255.7
<i>Total households</i>	1 034.9	576.7	844.4	170.6	198.2	116.3	—	—	2 941.1
Total state/territory									
Dwelling has rainwater tank	440.8	363.9	359.8	320.7	115.0	45.0	*3.7	9.7	1 658.6
Dwelling does not have rainwater tank	1 712.2	1 335.5	1 032.6	275.2	611.6	137.3	46.2	109.0	5 259.6
Dwelling not suitable for rainwater tank	519.3	285.4	170.6	55.3	78.9	16.8	11.5	9.9	1 147.7
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
PROPORTION (%)									
Capital city									
Dwelling has rainwater tank	7.6	9.7	16.0	40.2	7.2	13.2	*6.0	7.6	12.5
Dwelling does not have rainwater tank	66.3	74.0	71.1	50.1	81.7	77.2	75.3	84.7	70.1
Dwelling not suitable for rainwater tank	26.1	16.3	12.8	9.7	11.1	9.6	18.7	7.7	17.4
Balance of state/territory									
Dwelling has rainwater tank	30.5	39.4	29.0	74.7	35.8	29.3	—	—	34.7
Dwelling does not have rainwater tank	60.6	50.9	61.8	20.3	58.3	63.1	—	—	56.6
Dwelling not suitable for rainwater tank	8.9	9.7	9.3	*5.0	*5.9	7.6	—	—	8.7
Total state/territory									
Dwelling has rainwater tank	16.5	18.3	23.0	49.3	14.3	22.6	*6.0	7.6	20.6
Dwelling does not have rainwater tank	64.1	67.3	66.1	42.3	75.9	68.9	75.3	84.7	65.2
Dwelling not suitable for rainwater tank	19.4	14.4	10.9	8.5	9.8	8.5	18.7	7.7	14.2

* estimate has a relative standard error of 25% to 50% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Includes households that had a rainwater tank installed at the dwelling even if they did not report a rainwater tank as a source of water for the household.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regional split between capital city and balance of state/territory for the NT and the ACT as the sample does not support any breakdown beyond the whole territory.

3.8 HOUSEHOLDS WITH RAINWATER TANKS (a)(b), Sufficient supply—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
NUMBER ('000)									
Sufficient supply	329.6	234.9	286.8	227.8	82.0	29.9	np	np	1 198.4
Insufficient supply	65.0	78.7	36.6	49.2	17.5	np	np	np	261.9
Don't know	*5.5	*7.7	10.9	*3.3	*2.6	np	—	np	30.9
Total households	400.2	321.4	334.3	280.3	102.0	41.4	*3.1	8.5	1 491.2
PROPORTION (%)									
Sufficient supply	82.4	73.1	85.8	81.3	80.3	72.4	np	np	80.4
Insufficient supply	16.3	24.5	10.9	17.6	17.1	np	np	np	17.6
Don't know	*1.4	*2.4	3.3	*1.2	*2.5	np	—	np	2.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes households which have a rainwater tank at their dwelling but excludes those households which have a rainwater tank but do not use it.

(b) These figures are not directly comparable to those appearing in previous editions (refer to Explanatory Note 19).

(c) Northern Territory data refers to mainly urban areas only.

3.9 HOUSEHOLDS WITH RAINWATER TANK(a), Reasons why tank was installed—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
NUMBER (d) ('000)									
Capital City									
To save water	67.0	73.6	45.6	56.8	13.9	*2.0	**1.8	5.1	265.8
Not connected to mains water	**4.0	**8.2	*8.0	**4.8	*5.4	*4.9	**1.4	—	36.7
Water restrictions on mains water	32.0	24.7	29.0	*2.7	np	np	—	3.5	93.8
Concerns about quality of other sources of water/prefer rainwater	*3.2	*2.7	5.9	30.5	7.8	—	np	np	51.4
To save on water costs	17.1	10.8	*8.2	19.6	np	np	np	*1.7	61.6
For outdoor usage	10.3	15.7	17.9	7.7	np	np	—	np	52.6
Other	25.0	10.7	15.2	14.3	5.2	*1.4	—	*1.2	73.0
Total households	104.5	108.4	94.7	107.4	28.4	6.9	*3.3	8.3	461.8
Balance of state/territory									
To save water	73.7	34.7	36.7	31.6	*8.2	4.7	—	—	189.6
Not connected to mains water	74.9	58.8	89.8	*12.6	*14.7	9.9	—	—	260.6
Water restrictions on mains water	16.6	15.1	20.2	*4.8	np	np	—	—	57.1
Concerns about quality of other sources of water/prefer rainwater	45.7	30.5	29.4	30.9	21.0	*4.1	—	—	161.7
To save on water costs	33.0	*7.6	*9.2	14.0	np	np	—	—	68.7
For outdoor usage	*2.4	*6.1	*6.9	—	np	np	—	—	15.7
Other	16.8	9.5	16.2	7.1	5.6	*1.3	—	—	56.6
Total households	196.9	135.4	166.4	65.5	44.2	20.6	—	—	629.1
Total state/territory									
To save water	140.7	108.3	82.3	88.4	22.1	6.6	**1.8	5.1	455.4
Not connected to mains water	79.0	67.0	97.8	*17.3	20.1	14.8	**1.4	—	297.3
Water restrictions on mains water	48.6	39.8	49.2	7.5	np	np	—	3.5	150.9
Concerns about quality of other sources of water/prefer rainwater	48.9	33.2	35.2	61.4	28.8	*4.1	np	np	213.1
To save on water costs	50.1	18.4	17.4	33.5	7.1	np	np	*1.7	130.4
For outdoor usage	12.7	21.8	24.9	7.7	np	np	—	np	68.3
Other	41.7	20.3	31.3	21.4	10.8	*2.7	—	*1.2	129.6
Total households	301.4	243.8	261.0	172.9	72.7	27.6	*3.3	8.3	1 090.9

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes only those households which installed their own rainwater tank.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

(d) Totals do not equal the sum of items in each column as more than one reason may have been reported.

3.9 HOUSEHOLDS WITH RAINWATER TANK(a), Reasons why tank was installed—2007

continued

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
PROPORTION (%)									
Capital City									
To save water	64.1	67.9	48.1	52.9	49.0	*28.1	*55.8	62.3	57.5
Not connected to mains water	**3.9	**7.6	*8.4	**4.4	*18.9	70.7	**44.5	—	7.9
Water restrictions on mains water	30.7	22.8	30.7	*2.5	np	np	—	42.3	20.3
Concerns about quality of other sources of water/prefer rainwater	*3.0	**2.5	6.2	28.4	27.5	—	np	np	11.1
To save on water costs	16.4	10.0	*8.7	18.2	np	np	np	20.1	13.3
For outdoor usage	*9.9	14.5	18.9	7.2	np	np	—	np	11.4
Other	23.9	9.9	16.0	13.3	18.3	*20.3	—	*14.8	15.8
Balance of state/territory									
To save water	37.4	25.7	22.1	48.3	*18.5	22.6	—	—	30.1
Not connected to mains water	38.1	43.4	54.0	*19.2	33.2	47.8	—	—	41.4
Water restrictions on mains water	8.4	11.1	12.1	*7.3	np	np	—	—	9.1
Concerns about quality of other sources of water/prefer rainwater	23.2	22.6	17.7	47.2	47.4	*20.1	—	—	25.7
To save on water costs	16.8	*5.6	*5.5	21.3	np	np	—	—	10.9
For outdoor usage	*1.2	*4.5	*4.2	—	np	np	—	—	2.5
Other	8.5	7.0	9.7	10.9	12.8	*6.5	—	—	9.0
Total state/territory									
To save water	46.7	44.4	31.5	51.1	30.4	24.0	*55.8	62.3	41.7
Not connected to mains water	26.2	27.5	37.5	*10.0	27.6	53.6	**44.5	—	27.3
Water restrictions on mains water	16.1	16.3	18.8	4.3	np	np	—	42.3	13.8
Concerns about quality of other sources of water/prefer rainwater	16.2	13.6	13.5	35.5	39.6	*15.0	np	np	19.5
To save on water costs	16.6	7.6	6.7	19.4	9.8	np	np	20.1	12.0
For outdoor usage	4.2	8.9	9.5	4.4	np	np	—	np	6.3
Other	13.8	8.3	12.0	12.4	14.9	*10.0	—	*14.8	11.9

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes only those households which installed their own rainwater tank.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

3.10 WHETHER A RAINWATER TANK IS INSTALLED AT DWELLING(a), By selected attributes—2007

	<i>Dwelling has tank</i>	<i>Dwelling does not have tank</i>
	%	%
Tenure		
Owned outright	30.4	69.6
Being purchased	22.3	77.7
Rented	12.7	87.3
Dwelling type(b)		
Separate house	25.9	74.1
Semi-detached, row/terrace house, townhouse etc.	6.2	93.8
Household type		
Family household(c)	24.9	75.1
Lone person household	22.0	78.0
Group household	13.2	86.8
Who pays for water		
Pays all water costs	24.5	75.5
Pays part of water costs	12.7	87.3
Landlord/someone else pays	25.5	74.5

- (a) Figures in each row have been calculated as a proportion of the total households with the attribute described in that row.
- (b) The dwelling type 'Flat, unit or apartment' is not shown as these types of dwellings are unsuitable for installation of rainwater tanks.
- (c) Includes one family households and multiple family households with or without non-family members present.

3.11 HOUSEHOLDS WITHOUT A RAINWATER TANK(a)(b), Whether considered installing a tank—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)(d)	ACT(d)	Aust.
NUMBER ('000)									
Capital City									
Considered installing	502.5	529.5	274.6	105.9	162.9	20.7	9.8	53.7	1 659.5
Did not consider installing(a)	344.4	316.2	72.4	64.0	209.1	30.4	20.7	27.5	1 084.9
Total households	847.0	845.7	346.9	169.9	372.0	51.2	30.5	81.2	2 744.4
Balance of state/territory									
Considered installing	289.7	151.9	207.8	14.9	44.6	26.3	—	—	735.3
Did not consider installing(a)	179.2	70.6	146.9	6.7	28.7	29.3	—	—	461.6
Total households	469.0	222.6	354.7	21.6	73.3	55.7	—	—	1 196.9
Total state/territory									
Considered installing	792.3	681.4	482.4	120.8	207.4	47.1	9.8	53.7	2 394.9
Did not consider installing(a)	523.7	386.8	219.3	70.7	237.9	59.8	20.7	27.5	1 546.4
Total households	1 315.9	1 068.3	701.6	191.5	445.3	106.9	30.5	81.2	3 941.3
PROPORTION (%)									
Capital City									
Considered installing	59.3	62.6	79.1	62.3	43.8	40.5	32.1	66.1	60.5
Did not consider installing(a)	40.7	37.4	20.9	37.7	56.2	59.5	67.9	33.9	39.5
Balance of state/territory									
Considered installing	61.8	68.3	58.6	68.9	60.8	47.3	—	—	61.4
Did not consider installing(a)	38.2	31.7	41.4	31.1	39.2	52.7	—	—	38.6
Total state/territory									
Considered installing	60.2	63.8	68.8	63.1	46.6	44.0	32.1	66.1	60.8
Did not consider installing(a)	39.8	36.2	31.2	36.9	53.4	56.0	67.9	33.9	39.2

— nil or rounded to zero (including null cells)

(a) Includes those households that responded "Don't know".

(b) These figures are not comparable to those appearing in previous editions (refer to Explanatory Note 20).

(c) Northern Territory data refers to mainly urban areas only.

(d) No regional split between capital city and balance of state/territory available for NT and the ACT as the sample does not support any breakdown beyond the whole territory.

3.12**FACTORS PREVENTING INSTALLATION OF A RAINWATER TANK(a)(b)—2007**

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
NUMBER ('000)									
Not allowed in the area	18.4	12.4	8.7	np	np	*1.5	*1.7	*0.9	44.5
Cost	420.8	345.7	185.0	48.1	88.4	19.3	4.4	26.7	1 138.3
No room	124.1	83.9	47.8	28.0	32.3	np	np	9.8	328.9
No time/planned but haven't got around to it	195.3	179.5	159.3	35.5	68.7	19.2	*2.8	14.4	674.6
Health concerns	*7.1	*5.5	*6.8	*3.7	np	*1.6	np	**0.5	32.6
Insufficient rainfall	*6.7	39.4	*5.4	*2.6	6.4	np	np	3.8	64.6
Tank ordered but not yet installed	15.0	20.9	35.3	np	*2.5	np	np	*0.7	76.0
Still considering/awaiting renovations or repairs	16.7	10.0	14.7	*1.3	*2.6	*1.5	np	np	47.4
Dwelling not suitable	16.2	12.6	19.7	*3.1	*4.4	*1.3	—	*1.9	59.3
Planning to move house	18.3	15.3	16.7	**0.8	*4.5	**0.7	—	—	56.2
Other	46.3	66.4	44.6	9.5	15.5	*2.4	**0.7	5.6	191.0
Don't know	14.4	*6.3	6.7	**1.2	6.5	np	np	np	35.9
Total households	792.3	681.4	482.4	120.8	207.4	47.1	9.8	53.7	2 394.9

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
PROPORTION (%)									
Not allowed in the area	2.3	1.8	1.8	np	np	*3.3	*17.6	*1.6	1.9
Cost	53.1	50.7	38.3	39.8	42.6	41.0	44.6	49.8	47.5
No room	15.7	12.3	9.9	23.2	15.6	np	np	18.3	13.7
No time/planned but haven't got around to it	24.6	26.3	33.0	29.4	33.1	40.7	*28.2	26.9	28.2
Health concerns	*0.9	*0.8	*1.4	*3.1	np	*3.5	np	**0.9	1.4
Insufficient rainfall	*0.8	5.8	*1.1	*2.1	*3.1	np	np	7.0	2.7
Tank ordered but not yet installed	1.9	3.1	7.3	1.0	*1.2	np	np	*1.3	3.2
Still considering/awaiting renovations or repairs	2.1	1.5	3.0	*1.1	*1.3	*3.1	np	np	2.0
Dwelling not suitable	2.0	1.9	4.1	*2.5	*2.1	*2.8	—	*3.6	2.5
Planning to move house	2.3	2.2	3.5	**0.6	*2.2	**1.4	—	—	2.3
Other	5.8	9.7	9.2	7.8	7.5	*5.1	**6.8	10.5	8.0
Don't know	1.8	*0.9	1.4	**1.0	3.1	np	np	np	1.5

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes only households which are owner occupiers/purchasers, who have considered installing a rainwater tank. Excludes households where the dwelling is unsuitable for a rainwater tank (e.g. flats) and dwellings where there is already a rainwater tank.

(b) These figures are not directly comparable to those appearing in previous editions (refer to Explanatory Note 20).

(c) Northern Territory data refers to mainly urban areas only.

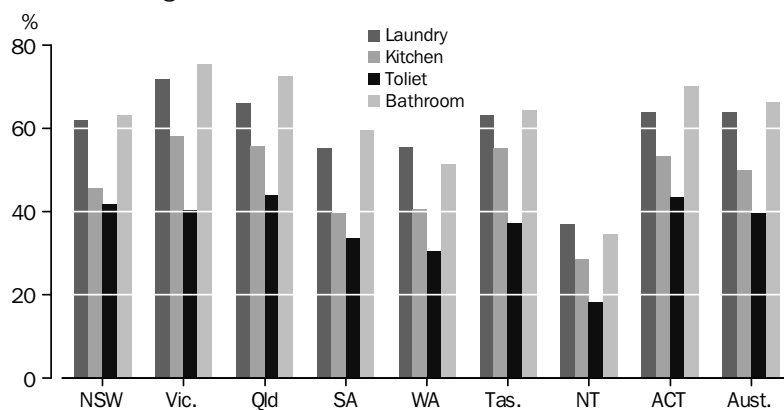
WATER CONSERVATION
INSIDE THE DWELLING
Introduction

This chapter looks at whether and how Australian households conserve water inside their dwellings. It contains data on steps taken to save water in the laundry, kitchen, bathroom and toilet. It also looks at grey water collection and use and water conservation devices such as dual flush toilets.

The proportion of households in each state that reported conserving water in wet rooms (laundry, kitchen, bathroom and toilet) is shown in table 4.7. A large proportion of households saved water in their dwellings, the bathroom being the most common room where 66.5% of households reported water saving activities followed by the laundry (63.9%) and the kitchen (49.9%). Only 39.8% reported saving water in the toilet.

Victorian households led the way in reported water saving activities in the laundry (71.9%), the kitchen (58.0%) and the bathroom (75.6%). Queensland reported the greatest proportion of households that saved water in the toilet (44.0%). The Northern Territory, reported the least water saving activities in each of the rooms (graph 4.1). This may not be surprising given the Northern Territory has no water supply problems at present (NRETA 2007).

4.1 HOUSEHOLDS THAT TOOK STEPS TO SAVE WATER(a), Inside the dwelling: 2007



(a) Data drawn from table 4.7, see table for notes about data limitations.

Common water saving activities of Australian households

Victoria, Queensland, the Australian Capital Territory and Tasmania all reported high proportions of households participating in water saving activities. All of these states have been subject to water restrictions imposed by water authorities or local councils (table 4.7 graph 4.1).

Common water saving activities of Australian households continued

The most common ways in which Australian households reported saving water were through more efficient use of water. For example, in the laundry the greatest proportion, 27.9% of households (2,187,800), reported saving water by only using the washing machine when it was full (table 4.8). Other common ways in which households saved water, were by purchasing a more water efficient washing machine (10.9%) and by using grey water for the laundry (10.4%).

The most common water saving activities in the toilet were flushing less often or only when needed (17.0 %) and using the half flush of the dual flush toilet (16.9%) (table 4.9).

Showering less or taking shorter showers was the way in which the greatest proportion of households reported saving water in the bathroom (36.9%) (table 4.10). Turning off the tap while cleaning teeth or shaving was the second greatest proportion (23.9%).

In the kitchen, 15.6% of households reported saving water, by waiting until they had a full sink of dishes before doing the washing up (table 4.11), and 11.2% of households reported only using the dishwasher when it was full.

Interestingly Tasmania, where there were only limited water restrictions in place in March 2007, consistently had the highest proportion of households reporting certain water saving activities. For example, using the plug in the sink, tub or basin, Tasmania recorded the highest proportion in the laundry (13.6%), bathroom (17.1%) and the kitchen (23.2%, although this figure also includes respondents who didn't leave the tap running). Checking for leaking taps and pipes was also a water saving activity more common in Tasmania than the other states and territories. In the laundry, 16.5% of Tasmanian households checked for leaks, 8.2% in the toilet, 16.4% in the bathroom and 14.6% in the kitchen (tables 4.8, 4.9, 4.10 and 4.11).

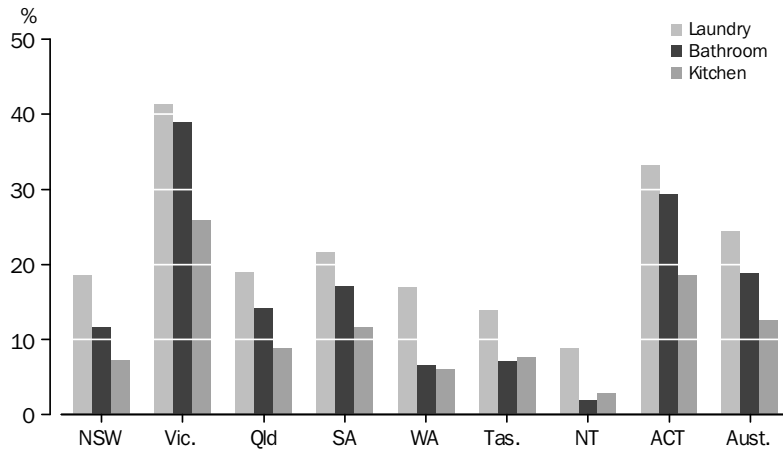
Grey water use and collection

A substantial proportion of Australian households collected greywater for reuse inside and outside the dwelling, and in the garden. Almost one-quarter (24.4%) of Australian households reported collecting grey water in the laundry in the 12 months leading up to March 2007. In the bathroom, 18.9% of households reported collecting grey water, and 12.5% reported collecting grey water in the kitchen (tables 4.8, 4.10 and 4.11 respectively).

Victoria had the highest proportion of households who reported collecting grey water. In the laundry, 41.4% of Victorian households reported collecting grey water, 38.9% in the bathroom, and 25.8% in the kitchen (tables 4.8, 4.10 and 4.11 respectively and graph 4.2). The Australian Capital Territory consistently had the second greatest proportion of households reporting the collection of grey water in various rooms. One-third of households (33.3%) reported collecting grey water in their laundry, 29.4% in the bathroom and 18.6% in the kitchen. The Northern Territory's water resources are considered relatively plentiful therefore, Northern Territorian households had the lowest reported rates of grey water collection.

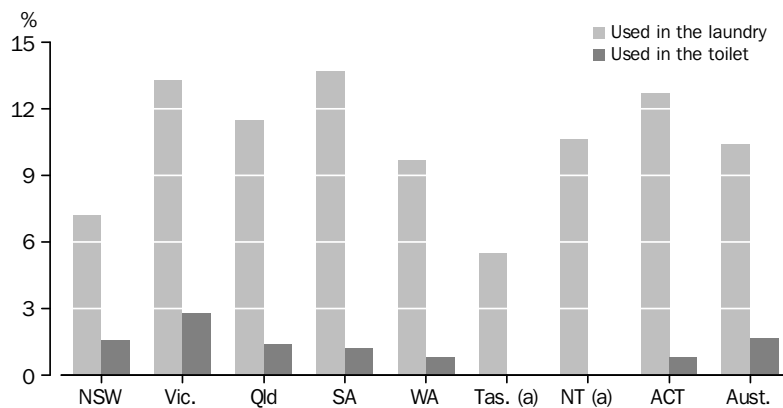
Grey water use and collection continued

4.2 HOUSEHOLDS THAT COLLECTED GREYWATER, Where collected: 2007



The use of grey water within the dwelling has only been considered in the laundry and toilet. In the laundry, 10.4% of Australian households used grey water (table 4.8 and graph 4.3). South Australian households had the greatest proportion (13.7%) that used grey water to wash clothes, followed closely by Victoria (13.3%) and the Australian Capital Territory (12.7%). Only 1.7% of Australian households used grey water to flush the toilet and the greatest proportion was in Victoria where 2.8% households reported doing so.

4.3 HOUSEHOLDS THAT USED GREY WATER, Inside the dwelling: 2007



(a) Greywater used in the toilet data is not available for publication.

Householders who either owned or were paying off their homes had a higher proportion reporting the collection and use of greywater than households that rented (tables 4.12, 4.13, 4.14 and 4.15). For example, in the laundry, more than one-third (34.9%) of owners and 30.2% of purchasers collected or used greywater compared to 18.2% of renters. Households that were paying all the costs of their water had a higher proportion (31.9%) collecting and using grey water in the laundry than households where someone else paid the water bill (17.6%). Family households were more likely to report the collection of grey water than group households. For example in the bathroom, almost

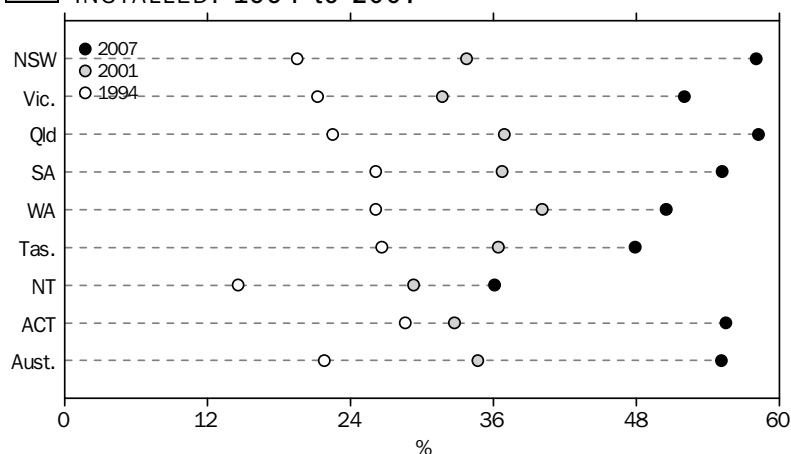
Grey water use and collection continued

one-fifth(19.9%) of family households reported collecting grey water, whereas only 9.9% of group households did the same.

Water conservation devices

One of the easiest ways in which households can save water in the home is to install water-efficient or low flow shower heads and dual-flush toilets. In 2007 at least one water-efficient shower head was installed in the dwellings of more than half of Australian households (55.1%) (table 4.18 and graph 4.4), this was comprised of 47.1% of households with water-efficient shower heads only and 8.0% with both water-efficient and regular shower heads (table 4.16). The proportion was even higher for dual-flush toilets, with 80.9% of households reporting that they had at least one dual-flush toilet, comprised of 74.8% with dual-flush toilets only and 6.1% with both dual-flush and regular toilets (table 4.16 and graph 4.5).

4.4 HOUSEHOLDS WITH WATER-EFFICIENT SHOWER HEAD INSTALLED: 1994 to 2007



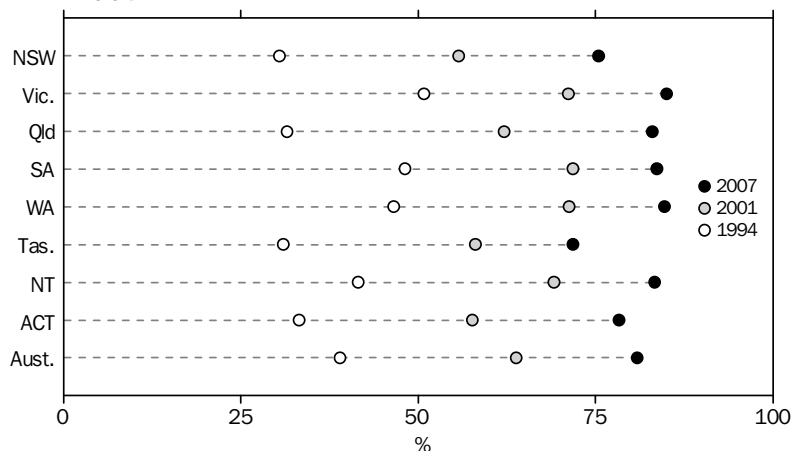
New South Wales had the greatest proportion of households which reported having water-efficient shower heads only in their dwelling 50.1% (table 4.16). Western Australia had the greatest proportion of households which reported having dual-flush toilets only in their dwelling (81.3%).

Victoria had the greatest proportion of households with at least one dual-flush toilet installed (85.1%), with 79.2% of households having dual-flush toilets only and a further 5.9% that had both dual-flush and regular toilets (tables 4.16 and 4.18 and graph 4.5).

The age of the dwelling appears to be an important factor when looking at the likelihood of dwellings having water-efficient devices installed. Almost three-quarters (74.4%) of dwellings which were less than one year old had only water-efficient shower heads installed. This figure fell to less than a half (45.8%) of dwellings more than 30 years old (table 4.17 and graph 4.6).

Water conservation devices continued

4.5 HOUSEHOLDS WITH DUAL-FLUSH TOILET INSTALLED: 1994 to 2007

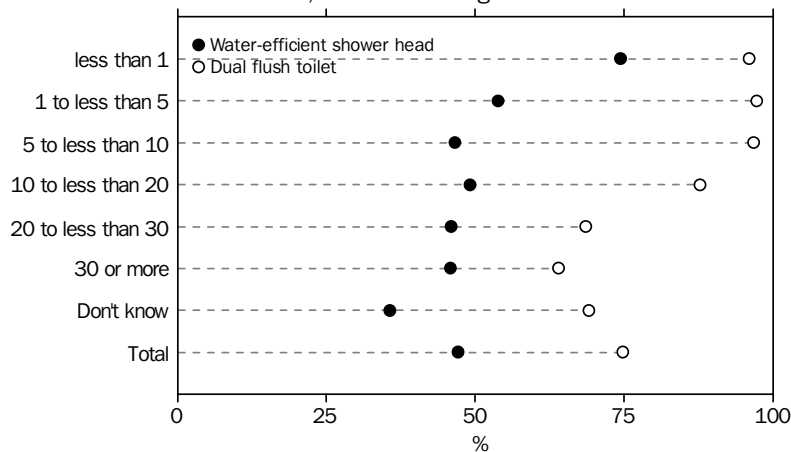


The likelihood of dual-flush toilets in dwellings also appears to be related to the age of the dwelling. Where the dwellings were less than one year old 96.0% of households reported having dual-flush toilets only. This figure fell to 64.0% of households where the dwelling was more than 30 years old. The dual-flush toilet was developed in 1981 (State Library of South Australia, 2007) so dwellings more than 26 years old must have had the dual-flush toilet retro-fitted.

Table 4.18 shows the uptake of both water-efficient shower heads and dual-flush toilets since 1994. In June 1994, only 21.8% of Australian households had a water-efficient shower head and 39.0% had a dual-flush toilet. These figures have risen steadily over the last 13 years to 55.1% for water-efficient shower heads and 80.9% for dual-flush toilets (graphs 4.4 and 4.5).

By 2007, more than 17 million water conservation devices were installed in the dwellings of Australian households, 6.4 million water-efficient shower heads and 10.8 million dual-flush toilets (table 4.19).

4.6 AGE OF DWELLING, Water saving devices installed: 2007



4.7 HOUSEHOLDS THAT TOOK STEPS TO SAVE WATER INSIDE THE DWELLING (a)(b)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)(d)	ACT(c)	Aust.
	%	%	%	%	%	%	%	%	%
CAPITAL CITY									
Saved water in the:									
Laundry(e)	62.7	70.7	71.3	53.9	54.8	61.2	37.0	63.8	64.0
Kitchen	48.5	60.5	61.4	39.5	40.4	57.2	28.7	53.3	51.8
Toilet(f)	45.9	39.8	47.2	34.6	30.1	34.9	18.3	43.5	40.9
Bathroom	64.8	76.7	78.5	60.2	49.8	67.0	34.6	70.1	67.6
BALANCE OF STATE/TERRITORY									
Saved water in the:									
Laundry(e)	60.7	74.8	61.7	59.5	57.9	64.7	—	—	63.7
Kitchen	41.2	52.1	50.9	40.4	41.5	53.7	—	—	46.6
Toilet(f)	35.2	41.1	41.4	31.2	31.3	39.0	—	—	37.8
Bathroom	60.7	73.0	67.2	58.0	56.4	62.7	—	—	64.6
TOTAL STATE/TERRITORY									
Saved water in the:									
Laundry(e)	61.9	71.9	66.1	55.4	55.5	63.2	37.0	63.8	63.9
Kitchen	45.7	58.0	55.7	39.7	40.7	55.2	28.7	53.3	49.9
Toilet(f)	41.8	40.2	44.0	33.7	30.4	37.3	18.3	43.5	39.8
Bathroom	63.2	75.6	72.4	59.6	51.4	64.5	34.6	70.1	66.5

— nil or rounded to zero (including null cells)

(a) Figures in each row have been calculated as a proportion of total households that have the facility described in that row.

(b) Refers to steps taken to save water in the last 12 months.

(c) No regional split between capital city and balance of state/territory for NT and ACT as the sample does not support any breakdown beyond the whole territory.

(d) Northern Territory data refers to mainly urban areas only.

(e) Excludes households that do not have a laundry or washing machine at the dwelling.

(f) Excludes households that do not have a flushing toilet at the dwelling.

4.8 HOUSEHOLDS THAT TOOK STEPS TO SAVE WATER IN THE LAUNDRY(a)(b)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
NUMBER ('000)									
Households that saved water in the laundry(d)	1 590.8	1 393.8	1 013.7	355.0	437.4	124.2	22.0	81.2	5 018.2
Collect grey water	477.7	802.3	291.2	139.0	134.0	27.4	5.2	42.4	1 919.3
Use grey water	184.4	257.5	175.8	87.9	76.6	10.9	6.3	16.1	815.5
Bought a water efficient washing machine	260.1	160.2	207.2	56.9	127.7	30.0	4.6	13.2	859.9
Only use washing machine when fully loaded	771.4	574.8	450.7	101.2	177.2	66.1	9.3	37.2	2 187.8
Use washing machine less/handwash	158.9	183.5	108.8	38.6	47.3	12.4	*2.3	6.8	558.6
Do less washing	174.0	167.6	118.0	41.0	36.0	10.0	2.6	5.7	555.0
Adjust water level when washing	206.1	152.9	167.3	34.1	71.0	37.6	6.4	13.4	688.8
Use suds saver on washing machine	61.4	42.7	38.7	18.9	20.7	6.2	**0.6	3.2	192.5
Use plug in sink/tub/basin	72.4	110.5	36.8	*5.7	26.3	26.7	*3.6	7.4	289.4
Use less water in sink/tub/basin	48.4	78.6	26.5	7.6	13.3	*9.9	*2.8	4.1	191.2
Check and repair leaks in taps/pipes/washing machine hoses	97.1	82.9	63.7	*5.7	43.1	32.5	*4.5	13.8	343.3
Other	24.9	17.3	17.3	5.8	9.7	*1.2	—	**1.0	77.1
No water saving activities reported/don't know	978.5	543.8	520.8	286.4	350.4	72.3	37.4	46.1	2 835.6
Total households	2 569.4	1 937.6	1 534.5	641.4	787.8	196.5	59.5	127.2	7 853.8

	PROPORTION (%)								
Households that saved water in the laundry(d)	61.9	71.9	66.1	55.4	55.5	63.2	37.0	63.8	63.9
Collect grey water	18.6	41.4	19.0	21.7	17.0	13.9	8.8	33.3	24.4
Use grey water	7.2	13.3	11.5	13.7	9.7	5.5	10.6	12.7	10.4
Bought a water efficient washing machine	10.1	8.3	13.5	8.9	16.2	15.3	7.7	10.4	10.9
Only use washing machine when fully loaded	30.0	29.7	29.4	15.8	22.5	33.6	15.6	29.3	27.9
Use washing machine less/handwash	6.2	9.5	7.1	6.0	6.0	6.3	*3.9	5.4	7.1
Do less washing	6.8	8.7	7.7	6.4	4.6	5.1	*4.4	4.5	7.1
Adjust water level when washing	8.0	7.9	10.9	5.3	9.0	19.2	10.8	10.6	8.8
Use suds saver on washing machine	2.4	2.2	2.5	3.0	2.6	3.2	**1.1	2.5	2.5
Use plug in sink/tub/basin	2.8	5.7	2.4	*0.9	3.3	13.6	*6.1	5.8	3.7
Use less water in sink/tub/basin	1.9	4.1	1.7	1.2	1.7	*5.0	*4.6	3.2	2.4
Check and repair leaks in taps/pipes/washing machine hoses	3.8	4.3	4.2	*0.9	5.5	16.5	*7.6	10.8	4.4
Other	1.0	0.9	1.1	0.9	1.2	*0.6	—	**0.8	1.0
No water saving activities reported/don't know	38.1	28.1	33.9	44.6	44.5	36.8	63.0	36.2	36.1

- * estimate has a relative standard error of 25% to 50% and should be used with caution
- ** estimate has a relative standard error greater than 50% and is considered too unreliable for general use
- nil or rounded to zero (including null cells)
- (a) Excludes households that do not have a laundry or washing machine at the dwelling.
- (b) Refers to steps taken to save water in the last 12 months.
- (c) Northern Territory data refers to mainly urban areas only.
- (d) Sub-totals do not equal the sum of items in each column as more than one step can be taken and reported.

4.9

HOUSEHOLDS THAT TOOK STEPS TO SAVE WATER IN THE TOILET(a)(b)—2007 ...

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
NUMBER ('000)									
Households that save water in the toilet(d)	1 114.7	795.6	684.4	219.6	244.5	73.8	11.2	55.9	3 199.8
Use grey water	43.6	55.8	22.4	7.7	6.8	np	np	*1.1	138.9
Installed water-efficient toilet	121.9	69.8	100.7	27.4	28.0	7.3	*1.9	7.7	364.7
Reduced flush volume	133.2	57.6	61.2	23.5	24.1	7.5	**1.1	8.5	316.6
Use half flush on dual flush toilet	489.0	340.4	268.6	81.6	113.4	35.8	4.7	23.0	1 356.5
Flush less often/only when needed	434.9	422.7	287.6	87.6	85.7	29.4	*3.3	18.9	1 370.2
Check and fix leaks in cistern	46.9	58.8	38.3	6.6	20.3	16.2	np	np	193.9
Other	15.4	15.5	8.8	*2.4	*3.5	np	—	np	46.1
No water saving activities reported/don't know	1 551.8	1 185.9	870.0	431.2	560.5	124.2	50.2	72.6	4 846.4
Total households	2 666.5	1 981.5	1 554.4	650.8	805.0	198.0	61.4	128.5	8 046.2
PROPORTION (%)									
Households that save water in the toilet(d)	41.8	40.2	44.0	33.7	30.4	37.3	18.3	43.5	39.8
Use grey water	1.6	2.8	1.4	1.2	0.8	np	np	*0.8	1.7
Installed water-efficient toilet	4.6	3.5	6.5	4.2	3.5	3.7	*3.1	6.0	4.5
Reduced flush volume	5.0	2.9	3.9	3.6	3.0	3.8	**1.8	6.6	3.9
Use half flush on dual flush toilet	18.3	17.2	17.3	12.5	14.1	18.1	7.7	17.9	16.9
Flush less often/only when needed	16.3	21.3	18.5	13.5	10.6	14.8	*5.4	14.7	17.0
Check and fix leaks in cistern	1.8	3.0	2.5	1.0	2.5	8.2	np	np	2.4
Other	0.6	0.8	0.6	*0.4	*0.4	np	—	np	0.6
No water saving activities reported/don't know	58.2	59.8	56.0	66.3	69.6	62.7	81.7	56.5	60.2

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes households that do not have a flushing toilet at the dwelling.

(b) Refers to steps taken to save water in the last 12 months.

(c) Northern Territory data refers to mainly urban areas only.

(d) Sub-totals do not equal the sum of items in each column as more than one step can be taken and reported.

4.10 HOUSEHOLDS THAT TOOK STEPS TO SAVE WATER IN THE BATHROOM (a) (b) — 2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
NUMBER ('000)									
Households that saved water in the bathroom(d)	1 687.4	1 498.7	1 126.9	388.1	414.2	128.3	21.2	90.2	5 354.9
Collect grey water	309.1	771.3	222.1	111.9	53.3	14.1	*1.1	37.9	1 520.8
Installed water saving device	356.1	125.4	200.4	45.5	58.5	13.4	*2.3	17.2	818.8
Take shorter showers/shower less often	930.0	839.3	672.2	206.3	201.5	66.2	11.2	48.3	2 974.9
Share a bath or shower(e)	128.5	91.7	109.0	23.4	54.0	12.6	4.2	5.2	428.6
Have showers instead of baths	273.7	229.1	135.5	46.8	92.8	39.6	5.0	15.4	838.0
Use less water in sink or bathtub	113.1	127.8	67.7	23.0	26.3	15.2	np	np	382.4
Turn off tap while cleaning teeth/shaving	624.2	404.7	524.9	71.6	178.7	71.9	11.8	35.0	1 922.7
Use a plug in sink/tub/basin	123.1	150.5	95.8	16.2	37.7	34.0	*4.4	7.8	469.5
Check and fix leaks/dripping taps	125.4	105.2	89.0	13.8	50.0	32.6	5.7	16.5	438.3
Other	22.3	23.9	18.0	5.6	*5.4	*2.1	np	np	78.8
No water saving activities reported/don't know	982.4	483.2	429.7	262.7	391.3	70.6	40.0	38.4	2 698.4
Total households	2 669.7	1 981.9	1 556.6	650.9	805.5	198.9	61.2	128.7	8 053.3

	PROPORTION (%)								
Households that saved water in the bathroom(d)	63.2	75.6	72.4	59.6	51.4	64.5	34.6	70.1	66.5
Collect grey water	11.6	38.9	14.3	17.2	6.6	7.1	*1.9	29.4	18.9
Installed water saving device	13.3	6.3	12.9	7.0	7.3	6.7	*3.7	13.4	10.2
Take shorter showers/shower less often	34.8	42.3	43.2	31.7	25.0	33.3	18.4	37.5	36.9
Share a bath or shower(e)	4.8	4.6	7.0	3.6	6.7	6.4	6.8	4.1	5.3
Have showers instead of baths	10.3	11.6	8.7	7.2	11.5	19.9	8.2	12.0	10.4
Use less water in sink or bathtub	4.2	6.4	4.4	3.5	3.3	7.6	np	np	4.7
Turn off tap while cleaning teeth/shaving	23.4	20.4	33.7	11.0	22.2	36.2	19.3	27.2	23.9
Use a plug in sink/tub/basin	4.6	7.6	6.2	2.5	4.7	17.1	*7.2	6.0	5.8
Check and fix leaks/dripping taps	4.7	5.3	5.7	2.1	6.2	16.4	9.4	12.9	5.4
Other	0.8	1.2	1.2	0.9	*0.7	*1.0	np	np	1.0
No water saving activities reported/don't know	36.8	24.4	27.6	40.4	48.6	35.5	65.4	29.9	33.5

* estimate has a relative standard error of 25% to 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes households that do not have any showers or bathtubs at the dwelling.

(b) Refers to steps taken to save water in the last 12 months.

(c) Northern Territory data refers to mainly urban areas only.

(d) Sub-totals do not equal the sum of items in each column as more than one step can be taken and reported.

(e) Includes sharing bathwater.

4.11 HOUSEHOLDS THAT TOOK STEPS TO SAVE WATER IN THE KITCHEN(a)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER ('000)									
Households that save water in the kitchen(c)	1 220.8	1 152.1	871.3	258.7	327.8	109.8	17.6	68.6	4 026.8
Collect grey water	195.7	511.1	139.5	75.5	49.4	15.3	*1.8	23.9	1 012.1
Installed water efficient dishwasher	55.6	34.6	28.4	11.1	18.8	5.7	*2.4	5.3	161.9
Installed water saving modification	78.2	15.6	66.1	*6.6	10.7	*2.1	**0.7	*2.4	182.5
Only use dishwasher when fully loaded	302.4	229.8	216.7	39.1	68.0	22.6	*4.2	23.6	906.5
Use dishwasher less/wash by hand	224.4	204.0	180.3	33.7	79.2	16.0	*2.7	16.6	756.9
Wait until sink is full before washing dishes	397.9	315.4	275.7	82.0	123.7	46.2	7.2	14.0	1 262.1
Use plug in sink/don't leave tap running	254.4	300.7	147.4	29.6	71.5	46.2	6.4	16.7	872.9
Use less/reuse water in sink	197.7	241.1	161.0	47.3	43.0	19.3	5.4	11.1	725.9
Check and repair leaks in taps/pipes	90.2	84.7	69.1	6.9	41.8	29.1	5.2	14.5	341.5
Other	44.5	44.5	32.1	*4.3	14.5	2.5	**0.6	*1.6	144.8
No water saving activities reported/don't know	1 451.5	832.7	691.7	392.5	477.7	89.3	43.7	60.1	4 039.1
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
PROPORTION (%)									
Households that save water in the kitchen(c)	45.7	58.0	55.7	39.7	40.7	55.2	28.7	53.3	49.9
Collect grey water	7.3	25.8	8.9	11.6	6.1	7.7	*2.9	18.6	12.5
Installed water efficient dishwasher	2.1	1.7	1.8	1.7	2.3	2.8	*3.9	4.1	2.0
Installed water saving modification	2.9	0.8	4.2	*1.0	1.3	*1.1	**1.1	*1.9	2.3
Only use dishwasher when fully loaded	11.3	11.6	13.9	6.0	8.4	11.4	*6.9	18.3	11.2
Use dishwasher less/wash by hand	8.4	10.3	11.5	5.2	9.8	8.1	*4.4	12.9	9.4
Wait until sink is full before washing dishes	14.9	15.9	17.6	12.6	15.4	23.2	11.7	10.9	15.6
Use plug in sink/don't leave tap running	9.5	15.2	9.4	4.5	8.9	23.2	10.4	13.0	10.8
Use less/reuse water in sink	7.4	12.1	10.3	7.3	5.3	9.7	8.8	8.6	9.0
Check and repair leaks in taps/pipes	3.4	4.3	4.4	1.1	5.2	14.6	8.5	11.3	4.2
Other	1.7	2.2	2.1	*0.7	1.8	1.3	**1.0	*1.3	1.8
No water saving activities reported/don't know	54.3	42.0	44.3	60.3	59.3	44.8	71.3	46.7	50.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Refers to steps to save water in the last 12 months.

(b) Northern Territory data refers to mainly urban areas only.

(c) Sub-totals do not equal the sum of items in each column as more than one step can be taken and reported.

4.12 HOUSEHOLDS THAT SAVE WATER IN THE LAUNDRY(a)(b), By selected attributes—2007

	Collect/use greywater	Bought water efficient washing machine	Other water saving activities(c)	No water saving activities reported/don't know
	%	%	%	%
Dwelling tenure				
Owned outright	34.9	10.0	43.5	32.2
Being purchased	30.2	14.0	43.0	34.3
Rented	18.2	9.1	40.5	43.7
Dwelling type				
Separate house	32.3	11.3	42.4	34.4
Semi-detached, row/terrace house, townhouse etc.	21.6	7.7	43.0	40.8
Flat, unit or apartment	11.6	11.1	42.5	43.4
Household type				
Family household(d)	30.9	12.3	42.6	34.3
Lone person household	24.5	7.0	42.8	39.6
Group household	15.8	9.3	33.9	51.8
Who pays for water				
Pays all water costs	31.9	11.2	42.9	34.1
Pays part of water costs	21.4	9.6	41.8	41.6
Landlord/someone else pays	17.6	10.5	40.7	42.8

- (a) Figures in each row have been calculated as a proportion of the total households with the attribute described in that row.
- (b) Refers to steps taken to save water in the last 12 months.
- (c) Refer to table 4.8 for break down of other water saving activities.
- (d) Includes one family households and multiple family households with or without non-family members present.

4.13 HOUSEHOLDS THAT SAVE WATER IN THE TOILET(a)(b), By selected attributes—2007

	<i>Use grey water</i>	<i>Installed water-efficient toilet</i>	<i>Other water saving activities(c)</i>	<i>No water saving activities reported/don't know</i>
	%	%	%	%
Dwelling tenure				
Owned outright	2.2	5.5	35.8	58.3
Being purchased	1.4	5.8	37.8	56.5
Rented	1.2	1.8	31.1	66.6
Dwelling type				
Separate house	1.8	5.1	35.9	58.8
Semi-detached, row/terrace house, townhouse etc.	1.4	2.6	34.5	62.4
Flat, unit or apartment	1.6	2.5	30.1	66.9
Household type				
Family household(d)	1.7	5.1	35.7	59.0
Lone person household	1.9	3.1	33.7	62.5
Group household	*0.8	*1.7	26.1	72.4
Who pays for water				
Pays all water costs	1.8	5.4	36.2	58.2
Pays part of water costs	*1.0	2.1	35.1	62.6
Landlord/someone else pays	1.5	1.5	29.8	67.7

* estimate has a relative standard error of 25% to 50% and should be used with caution

- (a) Figures in each row have been calculated as a proportion of the total households with the attribute described in that row.
- (b) Refers to steps taken to save water in the last 12 months. Excludes households that do not have a flushing toilet.
- (c) Refer to table 4.9 for break down of other water saving activities.
- (d) Includes one family households and multiple family households with or without non-family members present.

4.14**HOUSEHOLDS THAT SAVE WATER IN THE BATHROOM(a)(b), By selected attributes—2007**

	<i>Collect grey water</i>	<i>Installed water saving device</i>	<i>Other water saving activities(c)</i>	<i>No water saving activities reported / don't know</i>
	%	%	%	%
Dwelling tenure				
Owned outright	21.8	11.2	51.5	32.8
Being purchased	21.8	13.1	55.7	28.6
Rented	11.6	5.7	51.7	39.1
Dwelling type				
Separate house	20.7	11.1	53.2	31.9
Semi-detached, row/terrace house, townhouse etc.	16.7	8.9	51.7	36.6
Flat, unit or apartment	10.7	5.9	51.0	39.9
Household type				
Family household(d)	19.9	11.3	55.0	31.0
Lone person household	17.3	7.3	47.0	39.2
Group household	9.9	7.1	46.4	45.3
Who pays for water				
Pays all water costs	21.4	11.4	53.4	31.4
Pays part of water costs	13.4	8.1	51.7	36.3
Landlord/someone else pays	10.3	5.7	51.2	40.6

- (a) Figures in each row have been calculated as a proportion of the total households with the attribute described in that row.
- (b) Refers to steps taken to save water in the last 12 months. Excludes households that do not have a bathroom.
- (c) Refer to table 4.10 for break down of other water saving activities.
- (d) Includes one family households and multiple family households with or without non-family members present.

4.15 HOUSEHOLDS THAT SAVE WATER IN THE KITCHEN(a)(b), By selected attributes—2007

	Collect grey water	Installed a water efficient dishwasher	Installed water saving modification	Other water saving activities(c)	No water saving activities reported/don't know
	%	%	%	%	%
Dwelling tenure					
Owned outright	16.3	1.9	2.4	42.7	46.6
Being purchased	12.9	3.6	3.1	42.8	47.4
Rented	6.7	0.5	1.1	37.9	57.2
Dwelling type					
Separate house	13.8	2.3	2.5	42.0	48.4
Semi-detached, row/terrace house, townhouse etc.	10.7	*1.0	1.9	38.4	53.7
Flat, unit or apartment	6.9	*0.8	1.1	38.2	56.8
Household type					
Family household(d)	13.3	2.6	2.6	42.4	48.2
Lone person household	11.4	0.7	1.2	38.6	53.8
Group household	6.5	**np	*1.8	31.5	63.7
Who pays for water					
Pays all water costs	14.6	2.4	2.6	42.2	47.6
Pays part of water costs	7.2	*1.0	2.1	38.1	56.2
Landlord/someone else pays	6.1	*0.7	*1.1	38.1	57.5

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** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Refers to steps taken to save water in the last 12 months.

(b) Figures in each row are calculated as a proportion of the households with the attribute described in that row.

(c) Refer to table 4.11 for break down of other water saving activities.

(d) Includes one family households and multiple family households with or without non-family members present.

4.16 HOUSEHOLDS WITH WATER CONSERVATION DEVICES (a)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER ('000)									
Type of shower head									
Water-efficient only(c)	1 339.0	876.4	768.4	322.9	334.1	82.4	17.5	58.5	3 799.1
Regular only	1 107.9	944.4	644.1	290.0	397.3	101.9	38.8	57.1	3 581.4
Both water-efficient and regular(c)	211.3	155.1	140.9	36.8	72.6	13.0	np	np	647.3
No showers at dwelling	14.1	*8.9	*9.7	*1.4	*1.6	*1.8	np	np	38.1
Type of toilet									
Dual-flush only	1 794.2	1 572.7	1 228.7	518.2	655.2	126.8	48.1	88.9	6 032.8
Regular only	648.8	292.5	256.9	105.8	122.9	55.1	10.2	27.8	1 519.9
Both dual-flush and regular	223.6	116.3	68.8	np	np	16.2	*3.1	np	493.5
No flushing toilets at dwelling	np	np	*2.9	np	np	np	—	np	10.1
No toilets at dwelling	np	np	**5.6	—	np	np	—	—	*9.7
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
PROPORTION (%)									
Type of shower head									
Water-efficient only(c)	50.1	44.2	49.2	49.6	41.5	41.4	28.5	45.5	47.1
Regular only	41.5	47.6	41.2	44.5	49.3	51.2	63.2	44.4	44.4
Both water-efficient and regular(c)	7.9	7.8	9.0	5.7	9.0	6.5	np	np	8.0
No showers at dwelling	0.5	*0.4	*0.6	*0.2	*0.2	*0.9	np	np	0.5
Type of toilet									
Dual-flush only	67.1	79.2	78.6	79.6	81.3	63.7	78.4	69.1	74.8
Regular only	24.3	14.7	16.4	16.3	15.3	27.7	16.6	21.6	18.8
Both dual-flush and regular	8.4	5.9	4.4	np	np	8.2	*5.0	np	6.1
No flushing toilets at dwelling	np	np	*0.2	np	np	np	—	np	0.1
No toilets at dwelling	np	np	**0.4	—	np	np	—	—	*0.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Figures in each row are the number/proportion of households that have one or more of the water conservation devices described in that row.

(b) Northern Territory data refers to mainly urban areas only.

(c) Water efficient shower heads are also referred to as reduced flow shower heads.

4.17 HOUSEHOLDS WITH WATER CONSERVATION DEVICES, By age of dwelling—2007

AGE OF DWELLING IN YEARS

	Less than 1	1 to less than 5	5 to less than 10	10 to less than 20	20 to less than 30	30 or more	Don't know	Total households
NUMBER ('000)								
Type of shower head								
Water-efficient only(a)	62.0	299.8	356.7	682.3	637.6	1 683.6	77.1	3 799.1
Both water-efficient and regular(a)	np	39.7	68.1	134.6	134.1	259.6	np	647.3
Regular only	18.4	212.5	336.9	566.1	608.8	1 709.5	129.2	3 581.4
No showers at dwelling	np	*4.2	*3.7	*4.7	*4.1	20.4	np	38.1
Type of toilet								
Dual-flush only	80.0	541.4	741.1	1 219.0	949.9	2 352.4	148.9	6 032.8
Both dual-flush and regular	**1.5	**2.1	np	38.4	103.8	335.5	np	493.5
Regular only	**1.8	*11.5	16.7	127.0	329.9	973.7	59.3	1 519.9
No flushing toilets at dwelling	—	**1.3	np	**1.8	np	*5.0	—	10.1
No toilets at dwelling	—	—	np	**1.4	np	**6.5	np	*9.7
Total households	83.3	556.2	765.4	1 387.6	1 384.7	3 673.1	215.6	8 065.9

PROPORTION (%)

Type of shower head								
Water-efficient only(a)	74.4	53.9	46.6	49.2	46.0	45.8	35.7	47.1
Both water-efficient and regular(a)	np	7.1	8.9	9.7	9.7	7.1	np	8.0
Regular only	22.1	38.2	44.0	40.8	44.0	46.5	59.9	44.4
No showers at dwelling	np	*0.7	*0.5	*0.3	*0.3	0.6	np	0.5
Type of toilet								
Dual-flush only	96.0	97.3	96.8	87.8	68.6	64.0	69.1	74.8
Both dual-flush and regular	**1.8	**0.4	np	2.8	7.5	9.1	np	6.1
Regular only	**2.2	*2.1	2.2	9.2	23.8	26.5	27.5	18.8
No flushing toilets at dwelling	—	**0.2	np	**0.1	np	*0.1	—	0.1
No toilets at dwelling	—	—	np	**0.1	np	**0.2	np	*0.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Water efficient shower heads are also referred to as reduced flow shower heads.

4.18

HOUSEHOLDS WITH WATER CONSERVATION DEVICES (a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
MARCH 2007									
Number ('000)									
Water-efficient shower head(c)	1 550.3	1 031.5	909.2	359.7	406.7	95.4	22.2	71.4	4 446.4
Dual flush toilet	2 017.7	1 689.0	1 297.5	544.9	682.1	143.0	51.2	100.8	6 526.3
Total households(d)	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
Proportion (%) (e)									
Water-efficient shower head(c)	58.0	52.0	58.2	55.2	50.5	47.9	36.1	55.5	55.1
Dual flush toilet	75.5	85.1	83.0	83.7	84.7	71.8	83.4	78.3	80.9
MARCH 2004									
Proportion (%) (e)									
Water-efficient shower head(c)	43.0	41.6	43.9	49.1	47.5	40.9	20.8	41.5	43.5
Dual flush toilet	67.9	77.8	74.7	75.9	80.5	64.5	79.4	70.8	73.6
MARCH 2001									
Proportion (%) (e)									
Water-efficient shower head(c)	33.7	31.7	36.9	36.7	40.1	36.4	29.3	32.7	34.7
Dual flush toilet	55.5	71.2	62.1	71.8	71.3	58.1	69.2	57.6	63.8
MARCH 1998									
Proportion (%) (e)									
Water-efficient shower head(c)	30.0	31.7	34.1	33.5	37.7	32.3	28.0	32.6	32.3
Dual flush toilet	46.2	64.2	53.1	63.2	63.1	48.1	63.0	48.1	55.2
JUNE 1994									
Proportion (%) (e)									
Water-efficient shower head(c)	19.5	21.2	22.5	26.1	26.1	20.6	14.6	28.6	21.8
Dual flush toilet	30.5	50.8	31.5	48.2	46.6	31.0	41.6	33.2	39.0

(a) Figures in each row are the number/proportion of households that have one or more of the water conservation devices described in that row.

(b) Northern Territory data refers to mainly urban areas.

(c) Also referred to as 'reduced flow shower heads'.

(d) Totals do not equal the sum of items in the column as both items may be used in the same dwelling.

(e) The sum of proportions in each column may be greater than 100% as both items in the column may be used in the same dwelling.

4.19 TOTAL NUMBER OF WATER CONSERVATION DEVICES INSTALLED (a)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER ('000)									
Number of low flow showerheads(c)	2 204.4	1 484.3	1 354.3	464.5	585.2	121.4	31.6	106.5	6 352.2
Number of dual flush toilets(c)	3 502.0	2 755.8	2 211.1	789.2	1 114.3	207.9	81.5	167.2	10 829.1
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9

(a) Figures are the total number of devices present in household dwellings, not the number of households which have the specified device at their dwelling.

(b) Northern Territory data refers to mainly urban areas only.

(c) The number of total households may be less than the sum of items in each column as both types of device can be present in a dwelling and more than one of the same device can be present in a dwelling.

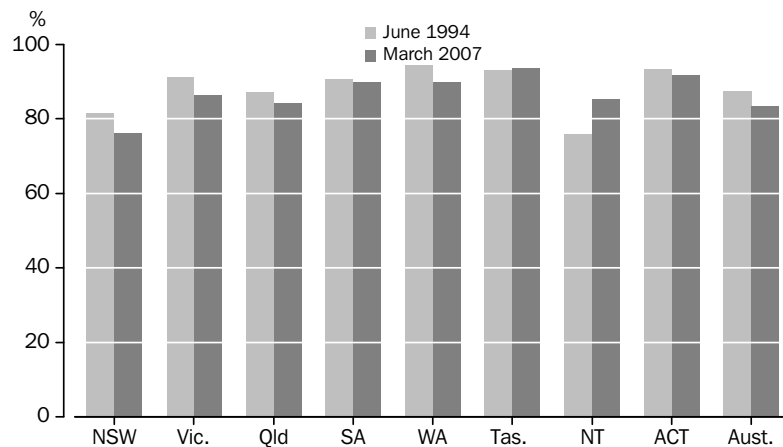
INTRODUCTION

This chapter focuses on water use and conservation in the garden and outside the home. It contains data on the methods used for watering gardens and steps taken to save water in the garden and other outside areas. It also presents data on households with swimming pools and some characteristics of those pools.

Households with gardens

In March 2007 more than four out of five Australian households had their own garden at their dwelling (83.5% or 6,733,600) (table 5.4 and graph 5.1). Tasmanian households were most likely to have their own garden (93.6%). Since 1994, the proportion of households without their own garden had risen from 12.6% to 16.5% in 2007. In New South Wales, 23.9% households did not have their own garden, the highest of any state or territory and an increase from 18.6% in 1994.

5.1 HOUSEHOLDS WITH GARDENS, 1994 AND 2007



Methods used in watering

The most common methods reported by Australian households for watering the garden were hand watering with a bucket or watering can (31.8%) and hand watering with a normal hose (23.2%) (table 5.5). Slightly more than one-quarter (25.5%) of households with a garden do not water or rely on rainfall only.

Households in capital cities were more likely than those in other parts of the states to hand water with a bucket or watering can, 35.0% to 26.5% respectively. In Victoria, 48.5% of households hand watered with a bucket or watering can.

Victoria had the lowest proportion of households watering with a normal hose (9.1%) and Western Australia the highest (39.8%).

*Methods used in watering
continued*

Forty per cent of Queensland households do not water or rely on rainfall only. In Brisbane, 47.9% of households do not water or rely on rainfall only compared to 33.3% in the rest of Queensland.

Group households were the most likely households to not water or to rely on rainfall only (46.4%) (table 5.6). This compared to 24.7% for family households and 25.9% for lone person households.

*Steps taken to save water
in the garden*

For all of Australia, 70.9% of households reported taking steps to save water in the garden. Households in the Australian Capital Territory, South Australia and Victoria were most likely to have reported taking steps to save water in the garden (78.2%, 77.8% and 75.5% respectively) (table 5.7). Western Australian and New South Wales households (both 66.8%) and Northern Territorian households (54.0%) were the least likely to have reported taking steps to save water in the garden.

Households renting their dwelling were less likely to have taken steps to save water in the garden (58.2%) than households that were owner occupiers (74.5%) or purchasers of their dwelling (74.7%) (table 5.9).

Almost three-quarters of family households (72.3%) and 68.1% of lone person households reported taking steps to save water in the garden. Only 55.1% of group households took steps to save water in the garden.

Of households that paid all of their water costs, 73.5% reported saving water in the garden whereas only 59.4% of households saved water in the garden where the landlord or someone else paid for the water costs.

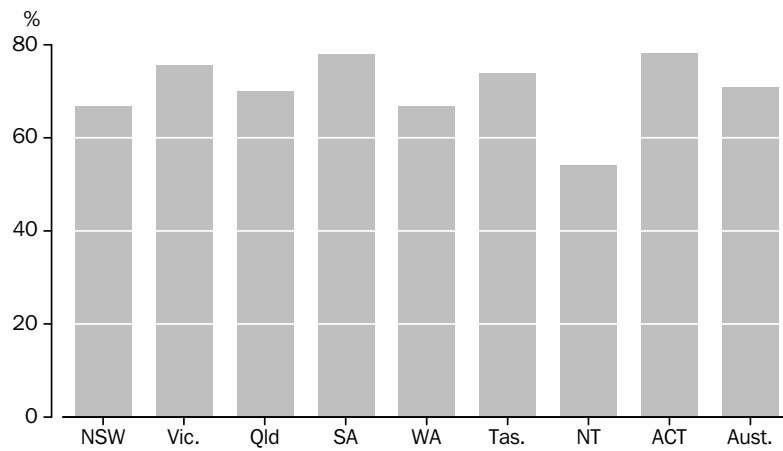
Thirty per cent of Australian households saved water in the garden by using grey water. Victoria had the greatest proportion of households using greywater (46.2%), followed by the Australian Capital Territory (36.2%) and Queensland (27.6%) (table 5.8).

Using mulch was the second most reported method used by Australian households to save water in the garden. Tasmanian households had the greatest reported use of mulch in the garden (39.9%), followed by Western Australia (31.4%).

Watering only when necessary was the third most common way to save water in the garden, with 20.4% of Australian households reporting this water saving activity. In South Australia, 25.6% of households watered only when necessary, which is the highest of all states and territories. Tasmania was second highest with 25.3% of households.

Steps taken to save water
in the garden *continued*

5.2 HOUSEHOLDS THAT SAVE WATER IN THE GARDEN, 2007



Steps taken to save water
outside

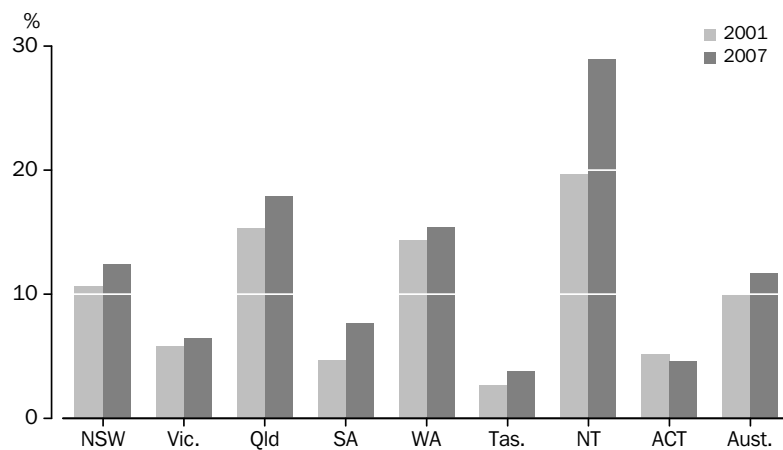
Almost two-thirds of households took steps to save water outside (other than in the garden). Only 32.5% of households reported no water saving activities or did not know. In the Northern Territory however, 62.2% of households reported no water saving activities outside (other than in the garden) (table 5.10).

The most common step taken was to not wash the car or wash the car less often (29.2%). Commercial car washing facilities were used by 17.8% of households. The Australian Capital Territory had the highest proportion of households reporting the use of commercial car washes (30.6%) followed Victoria (26.2%).

Swimming Pools

The proportion of households with swimming pools increased slightly to 11.7% in 2007, up from 11.3% in 2004 and 10.0% in 2001 (table 5.11). The states and territories covering Australia's north had the highest proportion of households with swimming pools: Northern Territory 28.9%, Queensland 17.9% and Western Australia 15.4%. The southern most state, Tasmania had the lowest proportion of households with swimming pools (3.8%).

5.3 HOUSEHOLDS WITH SWIMMING POOL AT DWELLING, 2001 AND 2007



Swimming Pools
continued

In-ground pools made up the majority of Australian pools, with 9.8% of households having an in-ground pool and 2.0% of households having an above-ground swimming pool.

Of the 944,600 households with swimming pools, 46.1% were both treated and filtered, a further 43.9% were only filtered and 5.8% were treated only (table 5.11). The proportion of pools being both treated and filtered has increased by 4.2 percentage points from 41.9% in 2001.

5.4

HOUSEHOLDS WITH/WITHOUT THEIR OWN GARDEN

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2007									
Number ('000)									
With garden	2 034.5	1 715.8	1 316.0	585.4	725.3	186.4	52.4	117.9	6 733.6
Without garden	637.8	268.9	247.0	65.7	80.3	12.8	*9.0	10.8	1 332.3
Total dwellings	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
Proportion (%)									
With garden	76.1	86.4	84.2	89.9	90.0	93.6	85.3	91.6	83.5
Without garden	23.9	13.6	15.8	10.1	10.0	6.4	*14.7	8.4	16.5
MARCH 2004									
Proportion (%)									
With garden	74.3	86.7	82.7	89.5	92.0	90.7	80.0	87.4	82.7
Without garden	25.7	13.3	17.3	10.5	8.0	9.3	20.0	12.6	17.3
MARCH 2001									
Proportion (%)									
With garden	78.7	87.3	85.1	90.7	92.1	91.4	86.6	90.8	85.0
Without garden	21.3	12.7	14.9	9.3	7.9	8.6	13.4	9.2	15.0
MARCH 1998									
Proportion (%)									
With garden	80.2	90.3	85.9	91.8	91.3	91.7	84.3	88.6	86.3
Without garden	19.8	9.7	14.1	8.2	8.7	8.3	15.7	11.4	13.7
JUNE 1994									
Proportion (%)									
With garden	81.4	91.1	87.2	90.6	94.4	93.1	75.8	93.4	87.4
Without garden	18.6	8.9	12.8	9.4	5.6	6.9	24.2	6.6	12.6

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

5.5 HOUSEHOLDS WITH GARDEN (a), Methods used in watering —2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
NUMBER (d) ('000)									
Capital city									
Hand watering with bucket/watering can	356.1	592.3	219.7	146.9	83.0	8.1	*5.5	47.0	1 458.7
Hand watering with normal hose	368.1	74.9	59.8	64.6	210.6	29.8	11.8	14.5	834.1
Hand watering with trigger hose	72.4	433.7	15.6	188.5	45.2	10.8	*1.9	44.9	813.0
Moveable sprinkler	7.8	*4.6	*8.5	66.1	50.3	12.5	7.7	3.6	161.0
Fixed sprinkler system	11.9	*11.3	*5.0	93.3	329.6	12.1	23.5	4.8	491.5
Micro spray/mini sprinkler	**2.8	*8.5	*2.3	21.1	35.3	6.3	*4.2	*2.2	82.7
Above ground drip system/seeping hoses	29.1	43.9	*6.3	57.8	20.7	7.9	6.2	19.5	191.3
Underground drip irrigation	14.3	18.1	*1.8	19.5	12.5	*1.5	*3.5	8.2	79.4
Other methods of applying water	*4.7	*8.5	4.8	np	np	*1.0	—	*0.7	25.0
Don't water/rely on rainfall only	389.6	301.1	289.4	54.2	23.8	15.3	9.6	27.9	1 110.9
Don't know(e)	48.8	31.0	23.4	np	np	**0.6	*1.1	*1.7	121.4
Total households	1 139.5	1 193.1	603.8	438.8	542.6	76.9	52.4	117.9	4 164.9
Balance of state/territory									
Hand watering with bucket/watering can	200.1	239.1	132.4	55.1	35.2	19.2	—	—	681.1
Hand watering with normal hose	313.5	81.4	198.1	24.1	78.0	34.6	—	—	729.7
Hand watering with trigger hose	104.0	88.8	47.5	44.8	18.0	18.6	—	—	321.7
Moveable sprinkler	96.5	52.1	92.8	32.1	47.8	26.1	—	—	347.4
Fixed sprinkler system	79.2	49.0	66.9	29.3	83.9	11.4	—	—	319.7
Micro spray/mini sprinkler	34.5	21.7	18.2	*14.0	12.7	*4.9	—	—	106.0
Above ground drip system/seeping hoses	52.9	24.3	31.5	24.0	14.8	7.3	—	—	154.7
Underground drip irrigation	14.5	8.9	14.7	9.3	*6.6	*1.9	—	—	56.0
Other methods of applying water	*4.8	*7.4	**2.7	np	np	*1.0	—	—	18.9
Don't water/rely on rainfall only	220.2	97.3	237.5	18.1	7.5	26.2	—	—	606.6
Don't know(e)	29.2	16.5	16.1	np	np	*0.6	—	—	65.1
Total households	895.0	522.7	712.2	146.7	182.7	109.4	—	—	2 568.7
Total state/territory									
Hand watering with bucket/watering can	556.2	831.4	352.1	202.0	118.2	27.3	*5.5	47.0	2 139.8
Hand watering with normal hose	681.6	156.4	257.9	88.6	288.6	64.4	11.8	14.5	1 563.8
Hand watering with trigger hose	176.4	522.5	63.1	233.3	63.1	29.4	*1.9	44.9	1 134.6
Moveable sprinkler	104.3	56.7	101.4	98.1	98.0	38.6	7.7	3.6	508.4
Fixed sprinkler system	91.1	60.4	71.9	122.7	413.5	23.4	23.5	4.8	811.3
Micro spray/mini sprinkler	37.3	30.2	20.5	35.0	48.1	11.2	*4.2	*2.2	188.7
Above ground drip system/seeping hoses	81.9	68.2	37.7	81.7	35.5	15.2	6.2	19.5	346.0
Underground drip irrigation	28.8	27.0	16.5	28.9	19.1	3.4	*3.5	8.2	135.4
Other methods of applying water	9.6	16.0	7.5	*3.3	5.1	*2.0	—	*0.7	44.0
Don't water/rely on rainfall only	609.8	398.4	526.9	72.3	31.3	41.4	9.6	27.9	1 717.5
Don't know(e)	78.0	47.5	39.5	6.5	11.1	**1.2	*1.1	*1.7	186.6
Total households	2 034.5	1 715.8	1 316.0	585.4	725.3	186.4	52.4	117.9	6 733.6

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Refer to Explanatory Note 21 for details about table population.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regional split between capital city and balance of state for NT and ACT as the sample does not support any breakdown beyond the whole of territory.

(d) Totals do not equal the sum of items in each column as more than one method can be specified.

(e) Includes inadequately reported responses.

5.5 HOUSEHOLDS WITH GARDEN (a), Methods used in watering —2007 *continued*

	NSW	Vic.	Q/d	SA	WA	Tas.	NT(b)(c)	ACT(c)	Aust.
PROPORTION (%)									
Capital city									
Hand watering with bucket/watering can	31.3	49.6	36.4	33.5	15.3	10.6	*10.6	39.9	35.0
Hand watering with normal hose	32.3	6.3	9.9	14.7	38.8	38.7	22.5	12.3	20.0
Hand watering with trigger hose	6.4	36.3	2.6	43.0	8.3	14.1	*3.7	38.1	19.5
Moveable sprinkler	0.7	*0.4	*1.4	15.1	9.3	16.2	14.7	3.0	3.9
Fixed sprinkler system	1.0	*1.0	*0.8	21.3	60.7	15.7	44.9	4.1	11.8
Micro spray/mini sprinkler	**0.2	*0.7	*0.4	4.8	6.5	8.1	*8.1	*1.9	2.0
Above ground drip system/seeping hoses	2.6	3.7	*1.0	13.2	3.8	10.3	11.8	16.5	4.6
Underground drip irrigation	1.3	1.5	*0.3	4.5	2.3	*1.9	*6.7	7.0	1.9
Other methods of applying water	*0.4	*0.7	0.8	np	np	*1.3	—	*0.6	0.6
Don't water/rely on rainfall only	34.2	25.2	47.9	12.3	4.4	19.8	18.3	23.6	26.7
Don't know(d)	4.3	2.6	3.9	np	np	**0.8	*2.1	*1.4	2.9
Balance of state/territory									
Hand watering with bucket/watering can	22.4	45.7	18.6	37.6	19.3	17.5	—	—	26.5
Hand watering with normal hose	35.0	15.6	27.8	16.4	42.7	31.6	—	—	28.4
Hand watering with trigger hose	11.6	17.0	6.7	30.5	9.8	17.0	—	—	12.5
Moveable sprinkler	10.8	10.0	13.0	21.9	26.1	23.8	—	—	13.5
Fixed sprinkler system	8.8	9.4	9.4	20.0	45.9	10.4	—	—	12.4
Micro spray/mini sprinkler	3.9	4.1	2.6	*9.5	7.0	*4.5	—	—	4.1
Above ground drip system/seeping hoses	5.9	4.7	4.4	16.4	8.1	6.6	—	—	6.0
Underground drip irrigation	1.6	1.7	2.1	6.4	*3.6	*1.8	—	—	2.2
Other methods of applying water	*0.5	*1.4	**0.4	np	np	*0.9	—	—	0.7
Don't water/rely on rainfall only	24.6	18.6	33.3	12.3	4.1	23.9	—	—	23.6
Don't know(d)	3.3	3.2	2.3	np	np	**0.5	—	—	2.5
Total state/territory									
Hand watering with bucket/watering can	27.3	48.5	26.8	34.5	16.3	14.7	*10.6	39.9	31.8
Hand watering with normal hose	33.5	9.1	19.6	15.1	39.8	34.5	22.5	12.3	23.2
Hand watering with trigger hose	8.7	30.5	4.8	39.8	8.7	15.8	*3.7	38.1	16.9
Moveable sprinkler	5.1	3.3	7.7	16.8	13.5	20.7	14.7	3.0	7.5
Fixed sprinkler system	4.5	3.5	5.5	21.0	57.0	12.6	44.9	4.1	12.0
Micro spray/mini sprinkler	1.8	1.8	1.6	6.0	6.6	6.0	*8.1	*1.9	2.8
Above ground drip system/seeping hoses	4.0	4.0	2.9	14.0	4.9	8.1	11.8	16.5	5.1
Underground drip irrigation	1.4	1.6	1.3	4.9	2.6	1.8	*6.7	7.0	2.0
Other methods of applying water	0.5	0.9	0.6	*0.6	0.7	*1.1	—	*0.6	0.7
Don't water/rely on rainfall only	30.0	23.2	40.0	12.3	4.3	22.2	18.3	23.6	25.5
Don't know(d)	3.8	2.8	3.0	1.1	1.5	**0.6	*2.1	*1.4	2.8

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Refer to Explanatory Note 21 for details about table population.

(b) Northern Territory data refers to mainly urban areas only.

(c) No regional split between capital city and balance of state for NT and ACT as the sample does not support any breakdown beyond the whole of territory.

(d) Includes inadequately reported responses.

5.6 HOUSEHOLDS WITH GARDEN METHODS USED IN WATERING THE GARDEN(a), By household type—2007

	Family household(b)	Lone person household	Group household	Unclassified	Total households
NUMBER ('000)					
Hand watering with bucket/watering can	1 627.6	445.8	43.5	22.8	2 139.8
Hand watering with normal hose	1 156.0	368.5	27.2	12.0	1 563.8
Hand watering with trigger hose	873.6	231.4	21.0	*8.7	1 134.6
Moveable sprinkler	397.5	96.3	8.4	6.1	508.4
Fixed sprinkler system	642.8	141.9	17.8	8.7	811.3
Micro spray/mini sprinkler	151.5	32.3	*3.6	**1.2	188.7
Above ground drip system/seeping hoses	283.5	56.5	*3.3	*2.7	346.0
Underground drip irrigation	113.7	19.3	**1.6	**0.9	135.4
Other methods of applying water	33.4	np	np	—	44.0
Don't water/rely on rainfall only	1 253.5	364.4	84.1	15.4	1 717.5
Don't know	145.0	np	np	*2.7	186.6
Total households	5 079.0	1 407.9	181.3	65.5	6 733.6

	PROPORTION (%)				
Hand watering with bucket/watering can	32.0	31.7	24.0	34.9	31.8
Hand watering with normal hose	22.8	26.2	15.0	18.3	23.2
Hand watering with trigger hose	17.2	16.4	11.6	*13.3	16.9
Moveable sprinkler	7.8	6.8	4.6	9.4	7.5
Fixed sprinkler system	12.7	10.1	9.8	13.3	12.0
Micro spray/mini sprinkler	3.0	2.3	*2.0	**1.9	2.8
Above ground drip system/seeping hoses	5.6	4.0	*1.8	*4.1	5.1
Underground drip irrigation	2.2	1.4	**0.9	**1.3	2.0
Other methods of applying water	0.7	np	np	—	0.7
Don't water/rely on rainfall only	24.7	25.9	46.4	23.6	25.5
Don't know	2.9	np	np	*4.1	2.8

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes households without gardens.

(b) Includes one family and multiple family households as well as family households with non-family members present.

5.7 HOUSEHOLDS WITH GARDEN, Whether saved water in the garden(a)—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER ('000)									
Saved water in the garden	1 358.3	1 295.7	922.6	455.5	484.6	137.3	28.3	92.2	4 774.3
Did not save water in the garden	671.3	412.5	391.4	127.7	238.0	48.6	22.1	25.3	1 936.9
Don't know	*4.9	7.6	*2.1	*2.2	*2.7	**0.4	*2.0	**0.4	22.4
Total households	2 034.5	1 715.8	1 316.0	585.4	725.3	186.4	52.4	117.9	6 733.6
PROPORTION (%)									
Saved water in the garden	66.8	75.5	70.1	77.8	66.8	73.7	54.0	78.2	70.9
Did not save water in the garden	33.0	24.0	29.7	21.8	32.8	26.1	42.3	21.5	28.8
Don't know	*0.2	0.4	*0.2	*0.4	*0.4	**0.2	*3.8	**0.3	0.3

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Refers to steps taken in the last 12 months.

(b) Northern Territory data refers to mainly urban areas only.

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

5.8 STEPS TAKEN TO SAVE WATER IN THE GARDEN(a), Households with garden—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER ('000) (c)									
Use grey water	540.8	793.3	363.1	121.1	121.0	28.6	6.3	42.7	2 016.8
Rainwater collected in other container	103.3	111.0	51.9	11.7	12.1	4.1	*1.5	6.4	302.0
Use rainwater collected in other container	71.7	68.4	32.0	7.3	9.4	2.4	**0.9	2.9	195.0
Use mulch	369.9	400.9	278.8	113.6	227.8	74.4	8.6	30.4	1 504.3
Plant native/low water consuming plants	199.9	137.4	144.5	53.9	119.6	32.4	5.5	17.3	710.4
Water at cooler times of the day	216.7	205.1	99.7	100.4	173.8	56.4	9.2	22.7	883.8
Water more thoroughly but less frequently	89.1	100.5	36.6	73.0	66.9	13.9	6.0	11.5	397.6
Only water when necessary	440.9	339.1	198.7	149.9	154.8	47.2	12.1	29.1	1 371.9
Don't water lawn	327.4	304.0	299.2	96.1	26.9	47.0	*3.9	30.0	1 134.4
Other steps taken	112.0	136.9	73.8	53.1	62.2	5.7	*4.2	12.6	460.6
No water saving activities reported/don't know	676.2	420.1	393.4	130.0	240.7	49.0	24.1	25.7	1 959.3
Total households	2 034.5	1 715.8	1 316.0	585.4	725.3	186.4	52.4	117.9	6 733.6
PROPORTION (%)									
Use grey water	26.6	46.2	27.6	20.7	16.7	15.3	11.9	36.2	30.0
Rainwater collected in other container	5.1	6.5	3.9	2.0	1.7	2.2	*2.9	5.4	4.5
Use rainwater collected in other container	3.5	4.0	2.4	1.2	1.3	1.3	**1.8	2.4	2.9
Use mulch	18.2	23.4	21.2	19.4	31.4	39.9	16.5	25.8	22.3
Plant native/low water consuming plants	9.8	8.0	11.0	9.2	16.5	17.4	10.4	14.7	10.6
Water at cooler times of the day	10.7	12.0	7.6	17.1	24.0	30.3	17.5	19.2	13.1
Water more thoroughly but less frequently	4.4	5.9	2.8	12.5	9.2	7.5	11.5	9.8	5.9
Only water when necessary	21.7	19.8	15.1	25.6	21.3	25.3	23.1	24.7	20.4
Don't water lawn	16.1	17.7	22.7	16.4	3.7	25.2	*7.4	25.4	16.8
Other steps taken	5.5	8.0	5.6	9.1	8.6	3.1	*8.1	10.7	6.8
No water saving activities reported/don't know	33.2	24.5	29.9	22.2	33.2	26.3	46.0	21.8	29.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Refers to steps taken in the last 12 months.

(b) Northern Territory data refers to mainly urban areas only.

(c) Totals do not equal the sum of items in each column as more than one step can be specified.

5.9 WHETHER SAVED WATER IN THE GARDEN(a)(b), By selected attributes—2007 ...

	<i>Saved water in the garden</i>	<i>Did not save water in the garden</i>	<i>Don't know</i>
	%	%	%
Dwelling tenure			
Owned outright	74.5	25.3	*0.2
Being purchased	74.7	25.1	*0.1
Rented	58.2	41.1	0.8
Dwelling type			
Separate house	72.5	27.2	0.3
Semi-detached, row/terrace house, townhouse etc.	61.5	38.2	*0.3
Flat, unit or apartment	57.6	41.3	*1.1
Household type			
Family household(c)	72.3	27.4	0.3
Lone person household	68.1	31.6	*0.3
Group household	55.1	43.1	*1.8
Who pays for water			
Pays all water costs	73.5	26.3	0.2
Pays part of water costs	61.6	37.4	*1.1
Landlord/someone else pays	59.4	39.8	0.8

- * estimate has a relative standard error of 25% to 50% and should be used with caution
- (a) Figures in each row have been calculated as a proportion of the total households with the attribute described in that row.
- (b) Excludes households that do not have a garden. Refers to steps taken in the last 12 months.
- (c) Includes one family households and multiple family households with or without non-family members present.

5.10 STEPS TAKEN TO SAVE WATER OUTSIDE(a), Other than the garden —2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
NUMBER (c) ('000)									
Use grey water	173.5	279.8	121.1	36.9	30.5	10.0	*1.4	12.0	665.3
Wash car on lawn	200.8	40.3	126.2	43.1	175.3	43.3	6.4	3.0	638.3
Use bucket to wash car rather than hose	285.1	114.7	200.4	135.9	133.0	29.4	*2.5	5.4	906.3
Don't wash car/wash car less often	741.6	636.8	580.9	143.7	142.1	49.1	8.6	53.3	2 356.2
Use a commercial car washing facility	391.1	519.6	233.1	142.1	83.8	23.1	4.6	39.3	1 436.8
Use high pressure cleaning unit that uses less water	19.5	36.4	23.7	*3.4	11.4	4.3	*2.0	*0.8	101.4
Use trigger hose to wash windows, cars or pets etc.	15.2	25.2	27.1	6.6	np	7.8	np	*1.8	92.4
Use alternative to hose for cleaning outdoor areas	346.6	208.7	259.6	56.1	143.2	34.8	6.4	17.4	1 072.8
Check and repair leaks in taps, pipes, hoses or sprinklers	47.8	69.7	39.6	4.7	35.7	28.4	3.7	5.5	235.0
Other	91.2	70.8	64.0	15.6	19.8	*1.3	*2.3	4.8	269.8
No water saving activities reported/don't know	928.6	590.1	427.9	217.8	321.7	66.9	38.2	31.9	2 623.1
No outdoor area at dwelling	165.7	73.4	55.5	6.4	*14.5	*0.7	**0.8	*4.0	321.1
Collect/use rainwater using bucket, bin etc.	69.0	64.3	38.5	9.1	6.3	2.6	*1.5	2.9	194.2
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
PROPORTION (%)									
Use grey water	6.5	14.1	7.7	5.7	3.8	5.0	*2.3	9.4	8.2
Wash car on lawn	7.5	2.0	8.1	6.6	21.8	21.7	10.4	2.3	7.9
Use bucket to wash car rather than hose	10.7	5.8	12.8	20.9	16.5	14.8	*4.1	4.2	11.2
Don't wash car/wash car less often	27.7	32.1	37.2	22.1	17.6	24.6	14.1	41.4	29.2
Use a commercial car washing facility	14.6	26.2	14.9	21.8	10.4	11.6	7.5	30.6	17.8
Use high pressure cleaning unit that uses less water	0.7	1.8	1.5	*0.5	1.4	2.2	*3.2	*0.6	1.3
Use trigger hose to wash windows, cars or pets etc.	0.6	1.3	1.7	1.0	np	3.9	np	*1.4	1.1
Use alternative to hose for cleaning outdoor areas	13.0	10.5	16.6	8.6	17.8	17.5	10.4	13.5	13.3
Check and repair leaks in taps, pipes, hoses or sprinklers	1.8	3.5	2.5	0.7	4.4	14.2	*6.0	4.3	2.9
Other	3.4	3.6	4.1	2.4	2.5	*0.7	*3.7	3.7	3.3
No water saving activities reported/don't know	34.7	29.7	27.4	33.4	39.9	33.6	62.2	24.8	32.5
No outdoor area at dwelling	6.2	3.7	3.6	1.0	*1.8	*0.4	**1.3	*3.1	4.0
Collect/use rainwater using bucket, bin etc.	2.6	3.2	2.5	1.4	0.8	1.3	*2.4	2.3	2.4

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Refers to steps taken in the last 12 months.

(b) Northern Territory data refers to mainly urban areas only.

(c) Totals do not equal the sum of items in each column as more than one step can be specified.

5.11 HOUSEHOLDS WITH/WITHOUT SWIMMING POOLS AT DWELLING

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2007									
Number ('000)									
Swimming pool at dwelling	331.3	128.1	280.1	50.2	123.9	7.5	17.7	5.9	944.6
In-ground pool	267.5	104.4	241.7	36.6	114.2	*2.4	15.5	4.4	786.7
Above-ground pool	63.8	23.7	38.4	13.6	9.6	5.1	*2.2	*1.5	158.0
No swimming pool at dwelling(b)	2 341.1	1 856.7	1 282.8	600.9	681.7	191.6	43.7	122.7	7 121.2
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
Proportion (%)									
Swimming pool at dwelling	12.4	6.5	17.9	7.7	15.4	3.8	28.9	4.6	11.7
In-ground pool	10.0	5.3	15.5	5.6	14.2	*1.2	25.2	3.4	9.8
Above-ground pool	2.4	1.2	2.5	2.1	1.2	2.6	*3.7	*1.2	2.0
No swimming pool at dwelling(b)	87.6	93.5	82.1	92.3	84.6	96.2	71.1	95.4	88.3
MARCH 2004									
Proportion (%)									
Swimming pool at dwelling	13.4	5.8	16.9	6.5	13.4	3.7	29.9	4.2	11.3
No swimming pool at dwelling(b)	86.6	94.2	83.1	93.5	86.6	96.3	70.1	95.8	88.7
MARCH 2001									
Proportion (%)									
Swimming pool at dwelling	10.6	5.8	15.3	4.7	14.3	2.7	19.6	5.2	10.0
No swimming pool at dwelling(b)	89.4	94.2	84.7	95.3	85.7	97.3	80.4	94.8	90.0
MARCH 1998									
Proportion (%)									
Swimming pool at dwelling	11.2	6.9	15.6	5.6	12.3	3.3	18.5	5.8	10.3
No swimming pool at dwelling(b)	88.8	93.1	84.4	94.4	87.7	96.7	81.5	94.2	89.7
JUNE 1994									
Proportion (%)									
Swimming pool at dwelling	10.6	6.4	11.7	5.9	11.1	4.2	18.2	5.8	9.2
No swimming pool at dwelling(b)	89.4	93.6	88.3	94.1	88.9	95.8	81.8	94.2	90.8

* estimate has a relative standard error of 25% to 50% and should be used with caution

(b) Includes households living in dwellings not suitable for swimming pools.

(a) Northern Territory data refers to mainly urban areas only.

5.12 HOUSEHOLDS WITH SWIMMING POOLS(a)(b), Filtration and treatment—2007 ..

	NSW	Vic.	Qld	SA	WA	Tas.	NT(c)	ACT	Aust.
MARCH 2007									
Number ('000)									
Filtered only	156.0	49.4	124.7	20.5	52.6	*1.4	8.3	*2.2	415.2
Treated only	17.1	*10.7	13.2	*2.6	9.0	*0.8	np	np	54.6
Both treated and filtered	145.3	59.5	134.3	23.2	57.9	4.1	8.1	3.2	435.4
Neither treated nor filtered	*7.3	np	*4.5	*2.5	*1.8	*1.1	np	np	24.9
Don't know(d)	*5.6	np	*3.4	*1.4	*2.5	—	—	np	14.6
Total households	331.3	128.1	280.1	50.2	123.9	7.5	17.7	5.9	944.6
Proportion (%)									
Filtered only	47.1	38.6	44.5	40.8	42.4	*19.3	47.1	37.2	43.9
Treated only	5.2	8.3	4.7	*5.2	7.3	*11.0	np	np	5.8
Both treated and filtered	43.9	46.4	47.9	46.2	46.7	54.5	45.9	53.4	46.1
Neither treated nor filtered	*2.2	np	*1.6	*5.0	*1.5	*15.1	np	np	2.6
Don't know(d)	*1.7	np	*1.2	*2.8	*2.0	—	—	np	1.5
MARCH 2004									
Proportion (%)									
Filtered only	51.0	39.4	47.6	49.9	44.5	(e)43.9	49.2	(e)49.2	47.6
Treated only	6.9	(e)8.7	(e)3.4	(e)5.6	7.8	(e)16.7	(e)8.7	(e)3.4	6.2
Both filtered and treated	40.0	49.1	47.4	41.3	46.4	(e)33.5	42.0	(e)47.3	44.1
Neither filtered or treated	(e)2.1	(e)2.8	(e)1.7	(e)3.2	(e)1.4	(e)5.9	—	—	2.0
MARCH 2001									
Proportion (%)									
Filtered only	53.1	46.2	53.6	41.1	44.5	(e)50.8	(e)45.8	(e)44.0	50.3
Treated only	6.0	(e)7.1	(e)5.0	(e)3.4	(e)5.2	(e)3.6	(e)1.5	(e)6.0	5.6
Both filtered and treated	39.4	42.1	39.7	49.3	49.5	(e)27.9	52.7	(e)43.6	41.9
Neither filtered or treated	(e)1.5	(e)4.5	(e)1.7	(e)6.1	(e)0.8	(e)17.8	—	(e)6.4	2.2

* estimate has a relative standard error of 25% to 50% and should be used with caution

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes households with swimming pool(s) only.

(b) These figures are not directly comparable to those appearing in previous editions (refer to explanatory note 22).

(c) Northern Territory data refers to mainly urban areas only.

(d) Respondents were not given this option prior to 2007.

(e) Estimate is subject to sampling variable too high for most practical purposes.

5.13 HOUSEHOLDS WITH/WITHOUT OUTDOOR SPA AT DWELLING—2007

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
NUMBER ('000)									
Outdoor spa	47.3	49.6	37.4	15.9	30.3	*1.7	5.5	*2.7	190.5
No outdoor spa(a)	2 625.0	1 935.2	1 525.6	635.2	775.2	197.4	55.8	126.0	7 875.4
Total households	2 672.3	1 984.8	1 563.0	651.1	805.5	199.1	61.4	128.7	8 065.9
PROPORTION (%)									
Outdoor spa	1.8	2.5	2.4	2.4	3.8	*0.9	9.0	*2.1	2.4
No outdoor spa(a)	98.2	97.5	97.6	97.6	96.2	99.1	91.0	97.9	97.6
* estimate has a relative standard error of 25% to 50% and should be used with caution									
(a) Includes households living at dwellings that are not suitable for outdoor spa.									

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains results from a supplementary survey on water use and conservation which was conducted throughout Australia in March 2007 as part of the Monthly Population Survey (MPS). It is a continuation of a series of surveys on this topic conducted since June 1994. The previous survey was conducted in March 2004. The major aim of the survey was to collect data on how households source and use their water.

2 The publication *Labour Force, Australia* (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly MPS, which also apply to supplementary surveys. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing which are relevant to supplementary surveys.

3 From April 2001, the Labour Force Survey component of the MPS has been conducted using a redesigned questionnaire containing additional questions and some minor definitional changes. These changes may affect the supplementary surveys. For further details, see *Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire* (cat. no. 6295.0) and *Information Paper: Questionnaires Used in the Labour Force Survey* (cat. no. 6232.0).

METHODOLOGY

Survey Vehicle

4 The Monthly Population Survey is based on a multi-stage area sample of private dwellings (houses, flats, etc.) and a list sample of non-private dwellings (hotels, motels, etc.). The sample for a monthly population survey is approximately 37,000 dwellings but only half of these were included in the March supplementary topic. For the March 2007 survey, there were 18,882 full responding households.

Data collection

5 Information was collected through interviews conducted over a two-week period during March 2007.

6 Information was collected from any responsible adult in the household who was asked to respond on behalf of the person or household.

7 Information for this survey was collected using computer assisted interviewing (CAI), whereby interviewers record responses directly onto an electronic questionnaire in a notebook computer. The March 2004 survey was conducted using the traditional 'pen and paper' method. In the March 2007 survey, all interviews were conducted using the CAI method.

8 The change in interviewing method is not expected to have affected the estimates in any meaningful way.

Estimation

9 The estimation process for this survey ensures that estimates calibrate exactly to independently produced population totals at broad levels. The known population totals, commonly referred to as 'benchmarks', are produced according to the scope of the survey. The same is true for estimates of households produced in this survey. However, in these cases the household benchmarks are actually estimates themselves and not strictly known population totals.

Estimation continued

10 Since this survey was last conducted, the process for producing household benchmarks has been refined. Whilst this process is still under review, it represents a significant improvement to the previous method and household benchmarks produced using the new method are considered to be of sufficient quality for use in household survey estimation. In addition, measures of the variability in household benchmarks have been incorporated into household estimates for the first time. These changes may result in unexpected movements in total households (at some broad levels) due to revised benchmark methodology.

11 A paper describing these issues in detail is currently being developed and will be released with catalogue number 3107.0.55.007.

SCOPE

12 The survey was conducted in both rural and urban areas in all states and territories of Australia, but excluded people living in very remote and sparsely settled parts of Australia who would otherwise have been within the scope of the survey. The exclusion of these people will have only a minor impact on any aggregate estimates that are produced for individual states and territories, with the exception of the Northern Territory where such persons account for over 20% of the population.

13 In this supplementary survey, persons aged 18 years and over who were usual residents of private dwellings were included except:

- members of the Australian permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from censuses and surveys;
- overseas residents in Australia;
- members of non-Australian defence forces (and their dependents) stationed in Australia; and
- residents of other non-private dwellings such as hospitals, motels and gaols.

COVERAGE

14 The estimates in this publication relate to households covered by the survey in March 2007.

DATA COMPARABILITY

15 A set of changing supplementary survey topics rotate over a period of three years. The topics contained in this publication compare with some data collected in 1994, 2001, and 2004. Where applicable, the data have been included in this publication for comparison.

16 An important point to note is that the environment topics were surveyed using a 'personal interview' methodology before 1997. From 1997 onwards the 'any responsible adult' methodology has been applied. When comparing post-1997 and pre-1997 data readers should be aware that some differences in the data may be explained by the change in methodology rather than representing real changes over time.

17 Data on the main source of water for gardening was previously collected and published in 2004 edition of 4602.0. Direct comparison of data on this item for 2007 is not possible due to an additional question in the 2007 survey prompting for the use of 'grey water'. This also had the effect of increasing the population of households responding that they had more than one source of water. These households with more than one source of water were then asked about the main source of water for gardening. To see the data previously collected and changes over time please refer to tables 3.23 and 3.24 in *Environmental issues: People's views and practices, 2004* (cat. no. 4602.0).

18 The data item 'Problems with the quality of the mains/town water supply' was previously collected at the person level but in 2007, it is collected at the household level. This means that the 2007 data is not comparable with previous collections. To see the data previously collected and changes over time please refer to table 3.31 in *Environmental issues: People's views and practices, 2004* (cat. no. 4602.0).

DATA COMPARABILITY *continued*

19 In 2007, those households which had a rainwater tank were asked if their rainwater tanks provided sufficient supply. Prior to 2007, those households which sourced water from rainwater tanks were asked if those water tanks provided sufficient supply. Therefore, 2007 data is not directly comparable to data in previous collections. To see the data previously collected and changes over time please refer to table 3.33 in *Environmental issues: People's views and practices, 2004* (cat. no. 4602.0).

20 The 2007 population for the questions on whether a household had considered installing a rainwater tank and the factors preventing the installation of a rainwater tank was limited to; those households that are home 'owners' or home 'purchasers'; and excluded those households which already have rainwater tanks and those dwellings which are unsuitable for a water tank (e.g. flats). Previously the population included all households except those that had a rainwater tank. Therefore, 2007 data is not directly comparable to data in previous collections. To see the data previously collected and changes over time please refer to tables 3.34 and 3.35 in *Environmental issues: People's views and practices, 2004* (cat. no. 4602.0).

21 Households that responded 'Don't water' when asked for their main source of water for gardening were not asked the question on methods used to water the garden. However, these households have been included in the 'Don't water/rely on rainfall only' category of methods used in watering gardens. This category also includes households who responded 'Don't water/rely on rainfall only' when asked for their methods of watering the garden. This second group may also have specified another method for watering the garden.

22 The figures presented on filtration and treatment of swimming pools is not directly comparable to those presented in previous publications as they have been calculated differently. Previously, the group that were labelled 'Both filtered and treated' were also counted in the 'Filtered' and 'Treated' categories. In 2007 these groups are mutually exclusive. Due to the questions used to collect this information in the past, the separation shown in 2007 can not be presented for 1994 and 1998. Please refer to *Environmental Issues: People's views and practices, 2004* (cat. no. 4602.0), for data from 1994, 1998 and 2001.

RELIABILITY OF THE ESTIMATES

23 Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For further information refer to the Technical Note.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether in a full count or a sample survey. Every effort is made to reduce the non-sampling error to a minimum by the careful design of questionnaires, intensive training and supervision of interviewers and efficient data processing procedures.

ACKNOWLEDGEMENTS

24 ABS surveys draw extensively on information provided by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics ACT 1905*.

NEXT SURVEY

25 The next national environmental supplementary survey will focus on Energy use and conservation. The survey will be run in March 2008.

RELATED PUBLICATIONS

26 Users may also wish to refer to the following ABS publications:
Environmental Issues: People's Views and Practices (cat. no. 4602.0) – 1992 to 2006 issues.

RELATED PUBLICATIONS

continued

Australia's Environment Issues and Trends 2006 (cat. no. 4613.0)

Water Account Australia (cat. no. 4610.0).

KEY REFERENCES

27 Further key references on environmental concerns, water use and conservation can be found through the following web sites:

Department of the Environment and Water Resources

(<http://www.environment.gov.au>)

Australian Greenhouse Office (<http://www.greenhouse.gov.au>)

28 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. The ABS also issues a daily *Release Advice* on the web site which details products to be released in the week ahead.

DATA AVAILABLE ON REQUEST

29 In addition to the statistics provided in this publication, the ABS may have other relevant data available on request. Subject to confidentiality and sampling variability constraints, tabulations can be produced from the survey by cross-classifying any of the following data items for the relevant survey populations. All inquiries should be made to the National Information and Referral Service on 1300 135 070.

DISSEMINATION OR STATISTICAL REGIONS

HOUSEHOLD CHARACTERISTICS

Household type

One family household

Couple with dependent child(ren)

One parent with dependent child(ren)

Couple only

Other one family households

Multiple family household

With dependent child(ren)

Without dependent child(ren)

Non-family household

Lone person

Group household

Unclassified

NUMBER OF USUAL RESIDENTS

One person

Two persons

Three persons

Four persons

Five persons

Six or more persons

TECHNICAL NOTE DATA
QUALITY

RELIABILITY OF THE
ESTIMATES

1 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all occupants of all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings (or occupants) was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

2 Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate:

$$RSE\% = \left(\frac{SE}{estimate} \right) \times 100$$

3 RSEs for estimates from 2007 Environmental Issues: People's views and practices are published for the first time in 'direct' form. Previously a statistical model was produced that relates the size of estimates to their corresponding RSEs, and this information was displayed via a 'SE table'. From this point onwards, RSEs for *Environmental Issues: People's views and practices* estimates will be calculated for each separate estimate and published individually. The Jackknife method of variance estimation is used for this process, which involves the calculation of 30 'replicate' estimates based on 30 different subsamples of the original sample. The variability of estimates obtained from these subsamples is used to estimate the sample variability surrounding the main estimate.

4 Limited publication space does not allow for the separate indication of the SEs and/or RSEs of all the estimates in this publication. However, RSEs for all these estimates will be available free-of-charge on the ABS web site <www.abs.gov.au>.

5 In the tables in this publication, only estimates (numbers and proportions) with RSEs less than 25% are considered sufficiently reliable for most purposes. However, estimates with larger RSEs have been included and are preceded by an asterisk (e.g. *3.4) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs greater than 50% are preceded by a double asterisk (e.g. **2.1) to indicate that they are considered too unreliable for general use.

PROPORTIONS AND PERCENTAGES

6 Proportions formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

DIFFERENCES

7 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

8 While this formula will only be exact for differences between separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.

SIGINIFICANCE TESTING

9 The statistical significance test for any of the comparisons between estimates can be performed to determine whether it is likely that there is a difference between the corresponding population characteristics. The standard error of the difference between two corresponding estimates (x and y) can be calculated using the formula in paragraph 7. This standard error is then used to calculate the following test statistics:

$$\frac{[x-y]}{SE(x-y)}$$

10 If the value of this test statistic is greater than 1.96 then we may say there is good evidence of a real difference (at the 95% confidence interval level) in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations.

11 The imprecision due to sampling variability, which is measured by the SE, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and recording by interviewers, and errors made in coding and processing data. Inaccuracies of this kind are referred to as non-sampling error, and they occur in any enumeration, whether it be a full count or sample. Every effort is made to reduce non-sampling error to a minimum by careful design or questionnaires, intensive training and supervision of interviewers, and efficient operating procedures.

GLOSSARY

Any responsible adult	Any person 15 years or over, a usual resident of the dwelling and whose next birthday was closest to the date of the interview responding on behalf of the selected person or household.
Couple	Two people in a registered or de facto marriage, who usually live in the same household.
Dependent children	All persons aged under 15 years; and people aged 15–24 years who are full-time students, have a parent in the household and do not have a partner or child of their own in the household.
Dwelling	A suite of rooms contained within a building which are self-contained and intended for long-term residential use. To be self-contained, the suite of rooms must possess cooking and bathing facilities as building fixtures. Examples of types of dwelling include: separate house; semi-detached, row or terrace house or townhouse; flat, unit or apartment; and other dwellings, including caravan, cabin, houseboat, and house or flat attached to a shop.
Family	Two or more people, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who usually live in the same household. A separate family is formed for each married couple, or for each set of parent-child relationships where only one parent is present.
Grey water	Water reused from waste water sourced from shower or bath, laundry or kitchen.
Group household	A household consisting of two or more unrelated people where all people are aged 15 years and over. There are no reported couple relationships, parent-child relationships or other blood relationships in these households.
Household	A group of residents of a dwelling who share common facilities and meals or who consider themselves to be a household. It is possible for a dwelling to contain more than one household, for example, where regular provision is made for groups to take meals separately and where persons consider their households to be separate.
Lone person household	A household consisting of a person living alone.
Multiple family household	A household containing two or more families. Unrelated individual may also be present.
Non-family household	Consists of unrelated people only. A non-family household can be either a person living alone or a group household.
One family household	A household containing only one family. Unrelated individuals may also be present.
One parent, one family household	A one family household comprising a lone parent with at least one dependent or non-dependent child. The household may also include other relatives and unrelated individuals.
Other one family household	A household comprising: <ul style="list-style-type: none">■ one couple, with their non-dependent child(ren) only■ one couple, with or without their non-dependent child(ren), plus other relatives■ one couple, with or without their non-dependent child(ren), plus unrelated individuals■ one parent, with his/her non-dependent child(ren), with or without relatives and unrelated individuals or■ two or more related individuals where the relationship is not a couple relationship or a parent-child relationship (e.g. two brothers)

Rainwater collected in other container	The use of bins, wine barrels, buckets etc. to collect rainwater, by either leaving the container out in the rain, or by placing container under the down pipes of the house.
Private dwelling	A dwelling that is intended to have people live in it (e.g. house, flat, unit, caravan, houseboat, tent, etc.).
Special dwelling	An establishment that provides predominantly short-term accommodation for communal or group living and often provides common eating facilities (e.g. hotels, motels, hospitals, prisons, short-stay caravan parks, etc.). Persons living in special dwellings were excluded from the scope of this survey.
Sufficient supply	Enough water in the tank to meet the specific needs of the household. If the water tank was installed to water the vegetable patch and there was enough water in the tank to water the vegetable patch, there was sufficient supply, or if the tank supplies all household water requirements and there was enough water to meet the needs of the household.
Usual residents	Persons who usually live in a particular private dwelling and regard it as their own or main home. Excludes usual residents who were away from the dwelling for more than six weeks altogether and visitors to the dwelling who do not usually live there, do not regard it as their own or main home, but are temporarily staying there.
Water saving modification	This is the installation of a flow restrictor or water aerator on the taps, which reduces the flow rate of water from that tap.

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