

DOMESTIC WATER USE

**WESTERN
AUSTRALIA**

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- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Gabriela Lawrence on Perth (08) 9360 5947.

NOTES

ABOUT THIS PUBLICATION This publication contains results from the Domestic Water Use Survey conducted in Western Australia (WA) in October 2003. It presents information on water-using appliances and the water-use behaviour of households in WA. The topics covered include sources of water supply, water heating, water-using appliances (e.g. washing machines, dishwashers, fixed airconditioners, toilets, showers and baths) and outdoor water use.

ABOUT THE SURVEY The survey was conducted as a supplement to the Australian Bureau of Statistics (ABS) Monthly Population Survey (MPS). Please refer to the Explanatory Notes at the back of this publication for further details about this survey.



ABBREVIATIONS

- ABS Australian Bureau of Statistics
- ASGC Australian Standard Geographical Classification
- MPS Monthly Population Survey
- RSE relative standard error
- SE standard error
- SR statistical region
- WA Western Australia

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SUMMARY OF FINDINGS

SOURCES OF WATER SUPPLY

In October 2003, an estimated 728,900 households in WA (94% of all households) received their domestic water supply from mains or town water. In Perth, 2% of households were not connected to mains water, compared with 16% of households in the Balance of WA.

All of the statistics in this publication (excluding table 1) relate only to those households in WA that were connected to mains or town water.

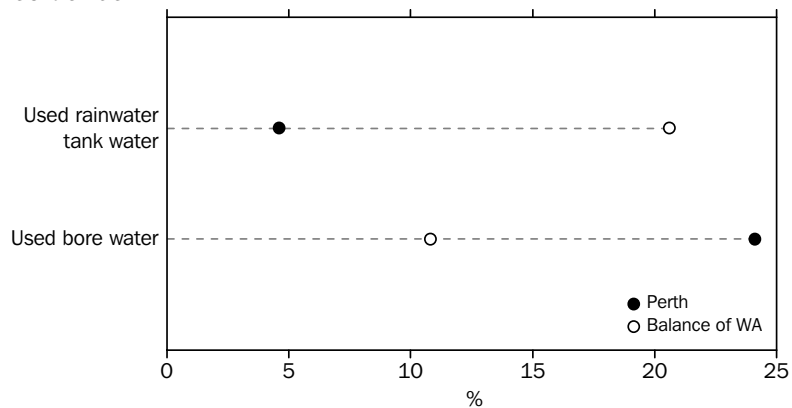
Rainwater tanks

There were an estimated 59,700 WA households connected to mains (8%) that indicated they used water from a rainwater tank in October 2003. A larger proportion of households in the Balance of WA used rainwater (21%) compared with Perth households (5%). Of those households that used water from a rainwater tank, the most common uses were drinking water (72%), watering the garden (46%) and food preparation (20%).

Bore water

In October 2003, an estimated 153,600 households in WA that were connected to mains (21%) reported using bore water. Almost one-quarter (24%) of Perth households and approximately one-tenth (11%) of households in the Balance of WA used bore water. Of those households that used bore water, 80% accessed the water from a single household bore and the remainder accessed the water from a multiple household bore (where a bore on one property is used by households on adjoining properties).

USE OF RAINWATER TANKS AND BORE WATER(a), By area of usual residence



(a) Households connected to mains water supply.

WATER HEATING

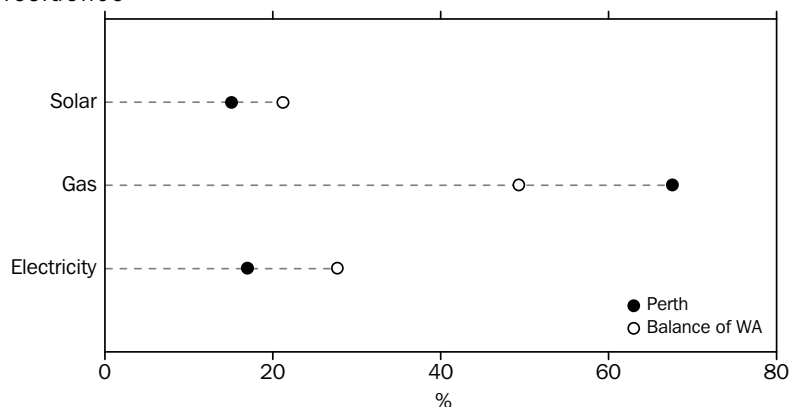
In October 2003, the majority (63%) of WA households connected to mains had a gas hot water system. Electricity was used for water heating by 19% of households and solar heating was used by 16% of households.

A higher proportion of Perth households had a gas hot water system (68%) than households in the Balance of WA (49%). In contrast, solar and electricity powered hot water systems were more common among households in the Balance of WA (21% and 28% respectively) than Perth households (15% and 17% respectively).

SUMMARY OF FINDINGS *continued*

WATER HEATING *continued*

ENERGY SOURCE OF HOT WATER SYSTEM(a), By area of usual residence



(a) Households connected to mains water supply.

WA households living in rented dwellings were more likely to have an electric hot water system (27%) than those living in dwellings that were fully owned (18%) or being purchased (16%). Solar hot water systems were most common in dwellings that were fully owned (22%). The use of gas hot water systems ranged from 59% to 69% of households across tenure types.

The majority (62%) of WA households had a storage/tank hot water system. Over one-third (36%) of households in WA had an instantaneous hot water system.

INDOOR WATER USE

Washing machines

An estimated 708,000 WA households connected to mains had a washing machine in October 2003 (97%), with the majority of these households (82%) having a top loading machine. Households in rented dwellings were most likely to have no washing machine (9%).

Of those households that had a washing machine, a higher proportion in Perth had a front loading machine (15%) than in the Balance of WA (7%). 'More water efficient' was the reason most frequently reported by WA households for choosing a front loading washing machine (66%), followed by 'better for clothes' (36%) and 'more energy efficient' (26%).

A small proportion (4%) of households in WA with a washing machine did not use it in the week prior to the survey. People living alone most commonly reported doing 1–2 loads of washing in the week prior to the survey (61%), whereas couple only households, lone parent households with children, and other households most commonly washed between 3–5 loads in the week prior to the survey (49%, 42% and 43% of these households respectively). Couple with children households most commonly washed between 3–8 loads in the week prior to the survey. Some 46,000 households reported doing 12 or more loads of washing in the week prior to the survey (6%).

SUMMARY OF FINDINGS *continued*

Dishwashers

In October 2003, over one-quarter (29%) of WA households connected to mains had a dishwasher, with Perth households being more likely to have a dishwasher (32%) than households in the Balance of WA (18%). Households living in fully owned dwellings or dwellings that were being purchased were more likely to have a dishwasher (33% and 38% respectively) than households in rented dwellings (10%).

Almost one-quarter (23%) of the 210,000 households that had a dishwasher did not use it in the week prior to the survey. Close to half (44%) of lone person households with a dishwasher reported not using it in the week prior to the survey, while 41% of couple with children households used their dishwasher six times or more.

Fixed airconditioners

There were an estimated 422,800 WA households connected to mains that had a fixed airconditioner in October 2003 (58%). Refrigerated airconditioners were the most common among households with a fixed system, with 56% having refrigerated fixed airconditioners compared with 41% that had evaporative fixed airconditioners. Among households with a fixed airconditioner, a similar proportion of Perth households and households in the Balance of WA had evaporative systems (42% and 40% respectively).

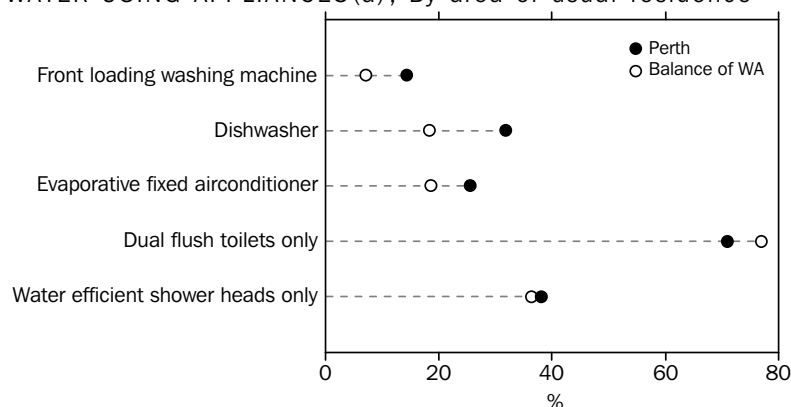
Toilets

In October 2003, almost three-quarters (72%) of all WA households connected to mains had only dual flush toilets. Nearly one-third (32%) of households in rented dwellings did not have any dual flush toilets, compared with 24% of fully owned dwellings and 17% of dwellings being purchased.

Shower heads

There were an estimated 274,800 WA households connected to mains that had only water efficient shower heads in October 2003 (38%). Households living in dwellings that were fully owned (42%) or being purchased (39%) were more likely to have only water efficient shower heads than those living in rented dwellings (29%).

WATER-USING APPLIANCES (a), By area of usual residence



(a) Households connected to mains water supply.

OUTDOOR WATER USE

Watering methods

In October 2003, an estimated 692,400 WA households connected to mains had gardens or lawns (95%). Various watering methods were used by households in maintaining their gardens or lawns, the most common being reticulation systems (73%) and hand-held hoses (73%). Sprinklers were also used by 22% of households. Watering with a reticulation system was more common among Perth households (75%) than households

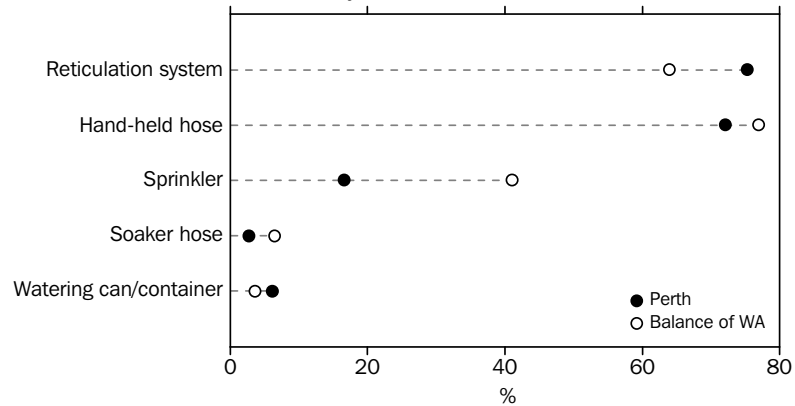
SUMMARY OF FINDINGS *continued*

Watering methods continued

in the Balance of WA (64%). In contrast, households in the Balance of WA were more likely to use sprinklers for watering (41%) than Perth households (17%).

Of the 502,400 WA households that had a reticulation system, 92% used it to water gardens, over three-quarters (79%) used it to water lawns and nearly one-quarter (24%) used it to water pot plants or hanging baskets. Almost three-quarters (72%) of household reticulation systems in WA were automated.

WATERING METHODS (a), By area of usual residence



(a) Households with gardens or lawns.

Water conservation in the garden

Over two-thirds (69%) of WA households connected to mains that had gardens or lawns used mulch in the 12 months prior to October 2003. A similar proportion of Perth households (69%) and households in the Balance of WA (70%) used mulch. Households living in a separate house were more likely to have used mulch (72%) than households in a semidetached, row or terrace house or townhouse (57%) or households in a flat, unit or apartment (45%).

Close to half (44%) of WA households with gardens or lawns reported re-using water from in and around the house for the purpose of watering the garden in the 12 months prior to October 2003. This includes a broad range of practices, such as using sophisticated recycled water systems, collecting water from running a shower, and pouring leftover water from water bottles and vases onto gardens/lawns.

A small proportion (3%) of households in WA reported not watering their gardens or lawns.

Swimming pools/outdoor spas

In October 2003, there were an estimated 126,600 households in WA connected to mains that had a swimming pool or outdoor spa (17%). Perth households were more likely to have a pool/outdoor spa (19%) than households in the Balance of WA (11%). Of those households that had a pool/outdoor spa, the majority (83%) had an in-ground pool and 11% had an outdoor spa. Just under one-third (30%) of WA households with a pool/outdoor spa had a pool/spa cover.

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1

CONNECTION TO MAINS WATER SUPPLY, By area of usual residence

Connection to mains water supply	Perth		Balance of WA		Total	
	'000	%	'000	%	'000	%
Connected	564.6	97.9	164.4	84.2	728.9	94.4
Not connected	12.2	2.1	30.9	15.8	43.1	5.6
All households	576.8	100.0	195.3	100.0	772.1	100.0

2

USE OF ADDITIONAL SOURCES OF WATER, By area of usual residence

	Perth		Balance of WA		Total	
	'000	%	'000	%	'000	%
Water from a rainwater tank						
Used water from a rainwater tank	25.8	4.6	33.9	20.6	59.7	8.2
Did not use water from a rainwater tank	538.7	95.4	130.4	79.4	669.2	91.8
Households connected to mains water supply	564.6	100.0	164.4	100.0	728.9	100.0
Bore water						
Used water from a single household bore	109.3	19.4	14.0	8.5	123.4	16.9
Used water from a multiple household bore	26.5	4.7	*3.7	*2.3	30.2	4.1
Did not use bore water	423.4	75.0	145.9	88.8	569.2	78.1
Households connected to mains water supply(a)	564.6	100.0	164.4	100.0	728.9	100.0

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

(a) Includes a small number of households that did not know whether bore water was used.

3

USE OF WATER FROM A RAINWATER TANK, By area of usual residence

<i>Use of water from a rainwater tank</i>	<u>Perth</u>		<u>Balance of WA</u>		<u>Total</u>	
	'000	%	'000	%	'000	%
Drinking water	14.1	54.5	28.6	84.5	42.7	71.5
Watering the garden	16.1	62.1	11.5	34.0	27.6	46.2
Food preparation	5.0	19.5	6.7	19.7	11.7	19.6
Washing clothes	*3.5	*13.7	*2.7	*8.0	6.2	10.5
Households using water from a rainwater tank^{(a)(b)}	25.8	100.0	33.9	100.0	59.7	100.0

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

(a) Components do not add to total because more than one use may be specified.

(b) Includes other uses for rainwater tank water reported by a small number of households.

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USE OF BORE WATER, By dwelling type

<i>Use of bore water</i>	<u>Separate house</u>		<u>Semidetached, row or terrace house, townhouse</u>		<u>Flat, unit or apartment</u>		<u>Total^(a)</u>	
	'000	%	'000	%	'000	%	'000	%
Used water from a single household bore	120.5	20.0	*2.6	*3.7	np	np	123.4	16.9
Used water from a multiple household bore	19.7	3.3	7.6	10.8	*3.0	*5.3	30.2	4.1
Did not use bore water	459.5	76.3	58.3	82.9	50.6	90.6	569.2	78.1
Households connected to mains water supply^(b)	601.8	100.0	70.3	100.0	55.9	100.0	728.9	100.0

* 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) Includes a small number of households living in other types of dwellings.

(b) Includes a small number of households that did not know whether bore water was used.

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ENERGY SOURCE OF HOT WATER SYSTEM, By area of usual residence

<i>Energy source of hot water system</i>	<u>Perth</u>		<u>Balance of WA</u>		<u>Total</u>	
	'000	%	'000	%	'000	%
Solar	85.2	15.1	34.8	21.2	119.9	16.5
Gas	381.5	67.6	81.0	49.3	462.5	63.5
Electricity	96.1	17.0	45.5	27.7	141.7	19.4
Households connected to mains water supply(a)	564.6	100.0	164.4	100.0	728.9	100.0

(a) Includes a small number of households with hot water systems that use other energy sources and households with no hot water system.

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ENERGY SOURCE OF HOT WATER SYSTEM, By tenure type

<i>Energy source of hot water system</i>	<u>Fully owned</u>		<u>Being purchased</u>		<u>Rented</u>		<u>Other</u>		<u>Total</u>	
	'000	%	'000	%	'000	%	'000	%	'000	%
Solar	59.9	21.5	38.1	15.2	20.6	10.9	*1.3	*11.2	119.9	16.5
Gas	164.7	59.3	171.9	68.6	117.6	62.4	8.3	69.3	462.5	63.5
Electricity	49.5	17.8	39.8	15.9	50.0	26.5	*2.3	*19.5	141.7	19.4
Households connected to mains water supply(a)	277.9	100.0	250.7	100.0	188.4	100.0	11.9	100.0	728.9	100.0

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

(a) Includes a small number of households with hot water systems that use other energy sources and households with no hot water system.

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TYPE OF HOT WATER SYSTEM, By area of usual residence

Type of hot water system	Perth		Balance of WA		Total	
	'000	%	'000	%	'000	%
Storage/tank(a)	346.3	61.3	108.6	66.1	454.9	62.4
Instantaneous	210.0	37.2	53.4	32.5	263.4	36.1
Unknown	7.8	1.4	*1.7	*1.1	9.6	1.3
Households connected to mains water supply(b)	564.6	100.0	164.4	100.0	728.9	100.0

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

(a) Includes all solar hot water systems as they are predominantly storage systems.

(b) Includes a small number of households with other types of hot water systems and households with no hot water system.

WATER-USING APPLIANCES, By area of usual residence

	Perth		Balance of WA		Total	
	'000	%	'000	%	'000	%
Washing machines						
Top loading	457.7	81.1	136.8	83.2	594.5	81.6
Front loading	81.0	14.4	11.8	7.2	92.9	12.7
Twin tub	9.4	1.7	11.0	6.7	20.4	2.8
Did not have a washing machine	16.4	2.9	*4.5	*2.7	20.9	2.9
Households connected to mains water supply(a)	564.6	100.0	164.4	100.0	728.9	100.0
Dishwashers						
Had a dishwasher	179.8	31.9	30.2	18.4	210.0	28.8
Did not have a dishwasher	384.8	68.1	134.1	81.6	518.9	71.2
Households connected to mains water supply	564.6	100.0	164.4	100.0	728.9	100.0
Type of fixed airconditioners						
Evaporative	144.3	25.6	30.5	18.6	174.8	24.0
Refrigerated	193.3	34.2	42.4	25.8	235.7	32.3
Did not have a fixed airconditioner	217.5	38.5	88.6	53.9	306.2	42.0
Households connected to mains water supply(b)	564.6	100.0	164.4	100.0	728.9	100.0
Number of fixed airconditioner outlets						
Two or less	164.2	29.1	34.0	20.7	198.1	27.2
More than two	182.9	32.4	41.7	25.4	224.6	30.8
Did not have a fixed airconditioner	217.5	38.5	88.6	53.9	306.2	42.0
Households connected to mains water supply	564.6	100.0	164.4	100.0	728.9	100.0
Toilets						
Single flush only	139.1	24.6	31.1	18.9	170.2	23.4
Dual flush only	400.3	70.9	126.3	76.9	526.6	72.2
Both single and dual flush	22.9	4.1	6.4	3.9	29.2	4.0
Households connected to mains water supply(c)	564.6	100.0	164.4	100.0	728.9	100.0
Shower heads						
Normal flow shower heads only	282.1	50.0	86.0	52.3	368.1	50.5
Water efficient shower heads only	214.9	38.1	59.8	36.4	274.8	37.7
Both normal flow and water efficient shower heads	41.6	7.4	9.4	5.7	51.0	7.0
Type of shower head unknown	25.2	4.5	9.1	5.5	34.3	4.7
Households connected to mains water supply(d)	564.6	100.0	164.4	100.0	728.9	100.0
Baths/indoor spas						
Used a bath/spa last week	145.2	25.7	43.7	26.6	188.9	25.9
Did not use a bath/spa last week	215.2	38.1	62.8	38.2	277.9	38.1
Did not have a bath/spa	204.2	36.2	57.9	35.2	262.0	35.9
Households connected to mains water supply	564.6	100.0	164.4	100.0	728.9	100.0

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

- (a) Includes a small number of households with other types of washing machines.
 (b) Includes a small number of households where the type of fixed airconditioner was unknown.
 (c) Includes a small number of households with other types of toilets.
 (d) Includes a small number of households with no shower.

WATER-USING APPLIANCES, By tenure type

	<u>Fully owned</u>		<u>Being purchased</u>		<u>Rented</u>		<u>Total (a)</u>	
	'000	%	'000	%	'000	%	'000	%
Washing machines								
Top loading	227.7	81.9	205.2	81.9	151.2	80.2	594.5	81.6
Front loading	33.5	12.1	41.1	16.4	17.3	9.2	92.9	12.7
Twin tub	13.0	4.7	*3.6	*1.4	*3.8	*2.0	20.4	2.8
Did not have a washing machine	*3.5	*1.3	**0.8	**0.3	16.1	8.5	20.9	2.9
Households connected to mains water supply(b)	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0
Dishwashers								
Had a dishwasher	92.9	33.4	95.0	37.9	18.9	10.0	210.0	28.8
Did not have a dishwasher	185.1	66.6	155.7	62.1	169.5	90.0	518.9	71.2
Households connected to mains water supply	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0
Type of fixed airconditioners								
Evaporative	78.2	28.1	68.9	27.5	25.5	13.6	174.8	24.0
Refrigerated	106.3	38.3	78.6	31.4	44.8	23.8	235.7	32.3
Did not have a fixed airconditioner	88.6	31.9	99.9	39.9	114.1	60.6	306.2	42.0
Households connected to mains water supply(c)	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0
Number of fixed airconditioner outlets								
Two or less	84.9	30.5	67.0	26.7	43.4	23.0	198.1	27.2
More than two	104.5	37.6	83.8	33.4	30.9	16.4	224.6	30.8
Did not have a fixed airconditioner	88.6	31.9	99.9	39.9	114.1	60.6	306.2	42.0
Households connected to mains water supply	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0
Toilets								
Single flush only	65.8	23.7	41.8	16.7	60.8	32.3	170.2	23.4
Dual flush only	194.8	70.1	198.9	79.3	123.1	65.4	526.6	72.2
Both single and dual flush	15.8	5.7	9.5	3.8	*3.7	*2.0	29.2	4.0
Households connected to mains water supply(d)	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0
Shower heads								
Normal flow shower heads only	130.0	46.8	117.6	46.9	116.6	61.9	368.1	50.5
Water efficient shower heads only	116.3	41.8	98.8	39.4	55.0	29.2	274.8	37.7
Both normal flow and water efficient shower heads	19.1	6.9	27.5	11.0	*3.6	*1.9	51.0	7.0
Type of shower head unknown	12.1	4.4	6.6	2.6	13.0	6.9	34.3	4.7
Households connected to mains water supply(e)	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0
Baths/indoor spas								
Used a bath/spa last week	46.8	16.8	89.6	35.8	51.4	27.3	188.9	25.9
Did not use a bath/spa last week	116.4	41.9	100.6	40.1	57.5	30.5	277.9	38.1
Did not have a bath/spa	114.8	41.3	60.4	24.1	79.6	42.2	262.0	35.9
Households connected to mains water supply	277.9	100.0	250.7	100.0	188.4	100.0	728.9	100.0

* 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) Includes a small number of households that reported other tenure types.

(b) Includes a small number of households with other types of washing machines.

(c) Includes a small number of households where the type of fixed airconditioner was unknown.

(d) Includes a small number of households with other types of toilets.

(e) Includes a small number of households with no shower.

10

TYPE OF WASHING MACHINE, By household type

Type of washing machine	Person living alone		Couple only		Couple with children		Lone parent with children		All other households		Total	
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
Top loading	141.9	86.0	151.3	81.5	184.1	82.2	67.6	88.3	49.6	87.3	594.5	84.0
Front loading	17.0	10.3	26.5	14.2	36.6	16.3	6.8	8.9	6.0	10.6	92.9	13.1
Twin tub	6.1	3.7	7.9	4.3	*3.3	*1.5	*2.2	*2.8	**0.9	**1.6	20.4	2.9
Households with a washing machine(a)	164.9	100.0	185.7	100.0	224.0	100.0	76.5	100.0	56.8	100.0	708.0	100.0

* 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) Includes a small number of households with other types of washing machines.

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REASONS FOR CHOOSING A FRONT LOADING WASHING MACHINE

Reasons for choosing a front loading washing machine	Western Australia	
	'000	%
More water efficient	61.0	65.7
Better for clothes	33.5	36.1
More energy efficient	24.5	26.4
What householders are used to	13.9	15.0
Other	10.2	11.0
Size/fits into space better	7.9	8.5
Rebate	6.1	6.6
Better for the environment	*2.9	*3.1
Did not choose, furnished dwelling	**0.7	**0.8
Households with a front loading washing machine(a) (b)	92.9	100.0

* 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) Components do not add to the total as more than one reason may be specified.

(b) Includes a small number of households where the reason for purchasing a front loading washing machine was unknown.

12

NUMBER OF LOADS OF WASHING DONE LAST WEEK, By household type

Number of loads of washing done last week	Person living alone.....		Couple only.....		Couple with children.....		Lone parent with children.....		All other households.....		Total.....	
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
None	11.1	6.7	6.3	3.4	*4.5	*2.0	*2.2	*2.9	*1.6	*2.9	25.7	3.6
1-2	99.8	60.5	56.2	30.3	17.1	7.7	14.9	19.5	8.6	15.2	196.7	27.8
3-5	45.4	27.5	91.8	49.4	72.8	32.5	32.2	42.0	24.7	43.5	267.0	37.7
6-8	6.8	4.1	25.7	13.8	64.6	28.9	16.6	21.7	12.3	21.7	126.0	17.8
9-11	np	np	*3.1	*1.7	31.9	14.3	5.2	6.8	*4.9	*8.6	46.5	6.6
12 or more	np	np	np	np	32.9	14.7	5.4	7.0	*4.6	*8.1	46.0	6.5
Households with a washing machine	164.9	100.0	185.7	100.0	224.0	100.0	76.5	100.0	56.8	100.0	708.0	100.0

* 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

13

NUMBER OF TIMES DISHWASHER WAS USED LAST WEEK, By household type

Number of times dishwasher was used last week	Person living alone.....		Couple only.....		Couple with children.....		Lone parent with children.....		All other households.....		Total.....	
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
None	9.5	44.1	17.9	30.2	14.7	14.2	*3.1	*24.6	*3.4	*24.7	48.5	23.1
1-2	5.7	26.6	16.8	28.5	15.8	15.4	*2.9	*22.7	*3.6	*25.6	44.8	21.3
3-5	5.0	23.4	18.6	31.6	30.7	29.8	*4.4	*35.1	*4.1	*29.4	62.9	29.9
6 or more	*1.3	*5.9	5.7	9.7	41.8	40.6	*2.2	*17.6	*2.8	*20.2	53.8	25.6
Households with a dishwasher	21.5	100.0	59.1	100.0	103.0	100.0	12.6	100.0	13.9	100.0	210.0	100.0

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

	<u>Perth</u>		<u>Balance of WA</u>		<u>Total</u>	
	'000	%	'000	%	'000	%
Watering methods						
Reticulation system	401.0	75.2	101.5	63.9	502.4	72.6
Hand-held hose	384.8	72.1	122.2	76.9	507.0	73.2
Sprinkler	88.6	16.6	65.1	41.0	153.7	22.2
Soaker hose	14.6	2.7	10.3	6.5	24.9	3.6
Watering can/container	32.3	6.1	5.7	3.6	38.0	5.5
Did not water	16.1	3.0	*4.5	*2.8	20.7	3.0
Households with gardens or lawns(a)	533.5	100.0	158.9	100.0	692.4	100.0
Use of mulch(b)						
Used mulch	369.6	69.3	111.4	70.1	481.0	69.5
Did not use mulch	163.9	30.7	47.5	29.9	211.5	30.5
Households with gardens or lawns	533.5	100.0	158.9	100.0	692.4	100.0
Re-use of water in the garden(c)						
Re-used water	233.7	43.8	68.4	43.0	302.0	43.6
Did not re-use water	299.8	56.2	90.5	57.0	390.4	56.4
Households with gardens or lawns	533.5	100.0	158.9	100.0	692.4	100.0

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

(a) Components do not add to the total as more than one watering method may be specified.

(b) In the last 12 months.

(c) Includes a broad range of practices undertaken by households in the last 12 months. See Glossary for a full definition of this term.

	<u>Separate house</u>		<u>Semidetached, row or terrace house, townhouse</u>		<u>Flat, unit or apartment</u>		<u>Total(a)</u>	
	'000	%	'000	%	'000	%	'000	%
Watering methods								
Reticulation system	433.4	73.5	46.3	69.4	22.2	62.6	502.4	72.6
Hand-held hose	433.3	73.5	48.1	72.2	25.2	71.2	507.0	73.2
Sprinkler	138.5	23.5	9.7	14.5	5.5	15.4	153.7	22.2
Soaker hose	23.1	3.9	*1.5	*2.2	np	np	24.9	3.6
Watering can/container	30.4	5.2	5.3	8.0	*2.0	*5.6	38.0	5.5
Did not water	15.5	2.6	*3.3	*4.9	*1.9	*5.4	20.7	3.0
Households with gardens or lawns(b)	589.7	100.0	66.7	100.0	35.4	100.0	692.4	100.0
Use of mulch(c)								
Used mulch	426.4	72.3	37.9	56.8	16.1	45.5	481.0	69.5
Did not use mulch	163.3	27.7	28.8	43.2	19.3	54.5	211.5	30.5
Households with gardens or lawns	589.7	100.0	66.7	100.0	35.4	100.0	692.4	100.0
Re-use of water in the garden(d)								
Re-used water	264.6	44.9	25.8	38.7	11.7	32.9	302.0	43.6
Did not re-use water	325.2	55.1	40.9	61.3	23.8	67.1	390.4	56.4
Households with gardens or lawns	589.7	100.0	66.7	100.0	35.4	100.0	692.4	100.0

* 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) Includes a small number of households living in other types of dwellings.

(b) Components do not add to the total as more than one watering method may be specified.

(c) In the last 12 months.

(d) Includes a broad range of practices undertaken by households in the last 12 months. See Glossary for a full definition of this term.

USE AND TYPE OF RETICULATION SYSTEM, By area of usual residence

	<u>Perth</u>		<u>Balance of WA</u>		<u>Total</u>	
	'000	%	'000	%	'000	%
Use of reticulation system						
Lawn watering	332.4	80.7	73.1	70.6	405.5	78.7
Garden watering	379.4	92.1	95.4	92.1	474.8	92.1
Pot plant or hanging basket watering	100.6	24.4	22.8	22.1	123.5	24.0
Did not use reticulation system	11.1	2.7	*2.0	*2.0	13.1	2.5
Households with a reticulation system(a)	412.0	100.0	103.5	100.0	515.6	100.0
Type of reticulation system						
Automated	296.2	71.9	72.9	70.4	369.0	71.6
Not automated	111.6	27.1	29.2	28.2	140.8	27.3
Households with a reticulation system(b)	412.0	100.0	103.5	100.0	515.6	100.0

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

(a) Components do not add to the total because more than one use may be specified.

(b) Includes a small number of households that did not know whether their reticulation system was automated.

USE AND TYPE OF RETICULATION SYSTEM, By dwelling type

	<u>Separate house</u>		<u>Semidetached, row or terrace house, townhouse</u>		<u>Flat, unit or apartment</u>		<u>Total(a)</u>	
	'000	%	'000	%	'000	%	'000	%
Use of reticulation system								
Lawn watering	362.9	81.6	27.6	57.3	14.8	66.0	405.5	78.7
Garden watering	411.6	92.6	42.9	89.2	20.0	89.3	474.8	92.1
Pot plant or hanging basket watering	110.7	24.9	8.5	17.7	*3.7	*16.4	123.5	24.0
Did not use reticulation system	11.1	2.5	*1.8	*3.8	np	np	13.1	2.5
Households with a reticulation system(b)	444.5	100.0	48.1	100.0	22.4	100.0	515.6	100.0
Type of reticulation system								
Automated	321.0	72.2	32.9	68.5	15.2	67.6	369.0	71.6
Not automated	120.2	27.0	14.0	29.1	6.0	26.8	140.8	27.3
Households with a reticulation system(c)	444.5	100.0	48.1	100.0	22.4	100.0	515.6	100.0

* 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) Includes a small number of households living in other types of dwellings.

(b) Components do not add to the total because more than one use may be specified.

(c) Includes a small number of households that did not know whether their reticulation system was automated.

18

WHETHER HAD A SWIMMING POOL/OUTDOOR SPA, By area of usual residence

Whether had a swimming pool/outdoor spa	Perth		Balance of WA		Total	
	'000	%	'000	%	'000	%
Had a pool/spa	109.2	19.3	17.4	10.6	126.6	17.4
Did not have a pool/spa	455.4	80.7	147.0	89.4	602.4	82.6
Households connected to mains water supply	564.6	100.0	164.4	100.0	728.9	100.0

19

TYPE OF SWIMMING POOL/OUTDOOR SPA AND WHETHER POOL/SPA HAD A COVER, By area of usual residence

	Perth		Balance of WA		Total	
	'000	%	'000	%	'000	%
Type of swimming pool/outdoor spa						
In-ground pool	93.0	85.2	11.8	68.2	104.8	82.8
Above ground pool	*3.3	*3.0	*2.0	*11.5	5.3	4.2
Outdoor spa	11.0	10.0	*2.5	*14.2	13.4	10.6
Households with a swimming pool/outdoor spa^(a)	109.2	100.0	17.4	100.0	126.6	100.0
Whether swimming pool/outdoor spa had a cover						
Had a cover	32.7	30.0	*4.8	*27.5	37.5	29.6
Did not have a cover	76.5	70.0	12.6	72.5	89.1	70.4
Households with a swimming pool/outdoor spa	109.2	100.0	17.4	100.0	126.6	100.0

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

(a) Includes a small number of households with other types of swimming pools.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains results from the WA Domestic Water Use Survey, which was conducted throughout WA during the two weeks commencing Monday, 6 October 2003.

2 The survey was conducted as a supplement to the ABS Monthly Population Survey (MPS). The MPS is based on a multi-stage area sample of private dwellings and a list sample of special dwellings (hotels, motels, hospitals, prisons, short-stay caravan parks, etc.). Information is obtained from the occupants of the selected dwellings by specially trained interviewers. For details of the design, scope and coverage of the MPS, users should refer to any recent edition of the ABS publication, *Labour Force, Australia* (cat. no. 6203.0) or the November 2002 edition of *Information Paper: Labour Force Survey Sample Design* (cat. no. 6269.0).

SCOPE

3 The WA Domestic Water Use Survey was conducted on a subset of the full sample of private dwellings in WA that were included in the MPS. The survey covered all persons who were usual residents of private dwellings 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
- persons living in sparsely settled areas of WA.

4 Information was collected by either face to face or telephone interview from one responsible adult per household, who answered questions on behalf of the household. Information was sought from approximately 3,400 households and data was obtained from approximately 95% of these households.

COVERAGE

5 Coverage rules were applied to ensure that each person was associated with only one dwelling and hence had only one chance of selection in the survey.

EFFECTS OF ROUNDING

6 Estimates in this publication have been rounded and discrepancies may occur between sums of the component items and totals.

ACKNOWLEDGMENT

7 ABS publications draw extensively on information provided freely 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*.

RELATED PUBLICATIONS

8 The ABS produces a wide range of publications concerning social and environmental statistics. Users may wish to refer to the following ABS publications which relate to the survey topic:

Environmental Issues: People's Views and Practices, Australia, March 2002,
cat. no. 4602.0

Environmental Issues: People's Views and Practices, Australia, March 2001,
cat. no. 4602.0

Domestic Water Use, New South Wales, October 2002, cat. no. 4616.1

*Conservation of Energy, Water and the Environment, Perth Statistical Division,
November 1992*, cat. no. 4650.5

9 Current publications and other products released 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.

APPENDIX ADDITIONAL DATA AVAILABLE

ADDITIONAL DATA AVAILABLE	In addition to the statistics provided in this publication, the ABS can produce customised tabulations 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.
POPULATIONS	<ul style="list-style-type: none">All householdsHouseholds connected to mains water supplyHouseholds with a rainwater tankHouseholds using water from a rainwater tankHouseholds using bore waterHouseholds with a washing machineHouseholds with a front loading washing machineHouseholds with a dishwasherHouseholds with a fixed airconditionerHouseholds with a bath/indoor spaHouseholds with gardens or lawnsHouseholds with a reticulation systemHouseholds with a swimming pool/outdoor spa
DATA ITEMS	<ul style="list-style-type: none">Area of usual residence<ul style="list-style-type: none">PerthBalance of WARegion of usual residence<ul style="list-style-type: none">Central metropolitanEastern metropolitanNorthern metropolitanSouth west metropolitanSouth east metropolitanLower western WARemainder-balance WADwelling type<ul style="list-style-type: none">Separate houseSemidetached, row or terrace house, townhouseFlat, unit or apartmentOtherTenure type<ul style="list-style-type: none">Fully ownedBeing purchasedRentedOther
<i>Household characteristics</i>	<ul style="list-style-type: none">Household type<ul style="list-style-type: none">Person living aloneCouple onlyCouple with childrenLone parent with childrenAll other households

APPENDIX ADDITIONAL DATA AVAILABLE *continued*

Household characteristics
continued

- Household size
 - One person household
 - Two person household
 - 3–5 person household
 - 6 or more person household
- Whether children in the household
 - With children (at least one household resident aged 0–14 years)
 - Without children (no household resident aged 0–14 years)

Sources of water supply

- Whether household was connected to mains water supply
- Whether household had a rainwater tank
- Whether household used water from a rainwater tank
- What water from the rainwater tank was used for
 - Washing clothes
 - Bathing
 - Food preparation
 - Drinking water
 - Watering the garden
 - Other uses
- Whether household used water from a bore
 - From a single household bore
 - From a multiple household bore
 - Did not use bore water
 - Don't know whether bore water was used

Water heating

- Energy source for hot water system
 - Solar
 - Gas
 - Electricity
 - Other
- Type of hot water system
 - Storage/tank
 - Instantaneous
 - Other
 - Don't know

Indoor water use

- Whether household had a washing machine
- Type of washing machine
 - Top loading
 - Front loading
 - Twin tub
 - Other

APPENDIX ADDITIONAL DATA AVAILABLE *continued*

Indoor water use continued

Reasons for choosing a front loading washing machine

- More energy efficient
- More water efficient
- Better for the environment
- Better for clothes
- Size/fits into space better
- Rebate
- Did not choose, furnished dwelling
- What householders are used to
- Other
- Don't know/no reason

Number of loads of washing done last week

Whether household had a dishwasher

Number of times dishwasher was used last week

Whether household had a fixed airconditioner

Type of fixed airconditioner

- Refrigerated
- Evaporative
- Don't know

Number of fixed airconditioner outlets

- Two or less
- More than two

Number of single flush toilets both inside and outside the dwelling

Number of dual flush toilets both inside and outside the dwelling

Number of other toilets both inside and outside the dwelling

Type of toilets

- Single flush only
- Dual flush only
- Both single and dual flush
- Other combinations

Number of showers with water efficient shower heads both inside and outside the dwelling

Number of showers with normal flow shower heads both inside and outside the dwelling

Type of shower heads

- Normal flow shower heads only
- Water efficient shower heads only
- Both normal flow and water efficient shower heads
- Type of shower head unknown

Number of times shower was used last week

Number of baths/indoor spas at dwelling

Number of times bath/indoor spa was used last week

Outdoor water use

Whether household had any gardens or lawns

Whether mulch was used on the garden in the last 12 months

Whether household had a reticulation system

APPENDIX ADDITIONAL DATA AVAILABLE *continued*

Outdoor water use continued

Methods of watering gardens/lawns

- Reticulation system
- Hand-held hose
- Sprinkler
- Soaker hose
- Watering can/container
- Other
- Did not water

Use of reticulation system

- Lawn watering
- Garden watering
- Pot plant or hanging basket watering
- Did not use reticulation system

Whether reticulation system was automated

Whether a hose was used to wash down things such as driveways, footpaths or buildings in the last 12 months

Whether household had a swimming pool/outdoor spa

Type of swimming pool/outdoor spa

- In-ground pool
- Above ground pool
- Outdoor spa

Whether swimming pool/outdoor spa had a cover

FURTHER INFORMATION

For further information about additional data available on request, please contact Gabriela Lawrence on Perth (08) 9360 5947.

TECHNICAL NOTE DATA QUALITY

ESTIMATION PROCEDURE

1 Estimates derived from this survey were obtained by adjusting the MPS selection weights to account for the slightly lower sample size for this survey. The weights were then adjusted to ensure that the survey estimates conformed to an independently estimated distribution of the population (by number of adults and children within the household, and by part of state) rather than the distribution among respondents.

2 The estimates were then obtained by summing the weights of households within the required group. For example, an estimate of the total number of households with a gas hot water system is obtained by adding together the weight for each household in the sample with a gas hot water system.

RELIABILITY OF ESTIMATES

Non-sampling errors

3 Estimates in this publication are subject to non-sampling and sampling errors.

4 Non-sampling errors may arise as a result of errors in the reporting, recording or processing of the data and can occur even if there is a complete enumeration of the population. Non-sampling errors can be introduced through inadequacies in the questionnaire, non-response, inaccurate reporting by respondents, errors in the application of survey procedures, incorrect recording of answers, and errors in data entry and processing.

5 It is difficult to measure the size of the non-sampling errors and the extent of these errors could vary considerably from survey to survey and from question to question. Every effort was made in the design of this survey and in the development of survey procedures to minimise the effect of these errors.

Sampling errors

6 Sampling error is the difference between the published estimate, calculated from a sample of dwellings, and the value that would have been produced if all dwellings had been included in the survey.

7 One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate may vary from the true value. There are about two chances in three (67%) that a survey estimate is within one SE of the figure that would have been obtained if all households had been included in the survey, and about 19 chances in 20 (95%) that the estimate lies within two SEs.

8 Due to space limitations, it is impractical to print the SE of each estimate in the publication. Instead, a table of SEs is provided to enable readers to determine the SE for an estimate based on the size of that estimate (see table T1). The SE table is derived from a mathematical model, which is created using the data collected in the survey. The figures in the SE table will not give a precise measure of the SE for a particular estimate but will provide an indication of its magnitude.

9 Linear interpolation can be used to calculate the SE of estimates falling between the sizes of estimates presented in T1, using the following general formula:

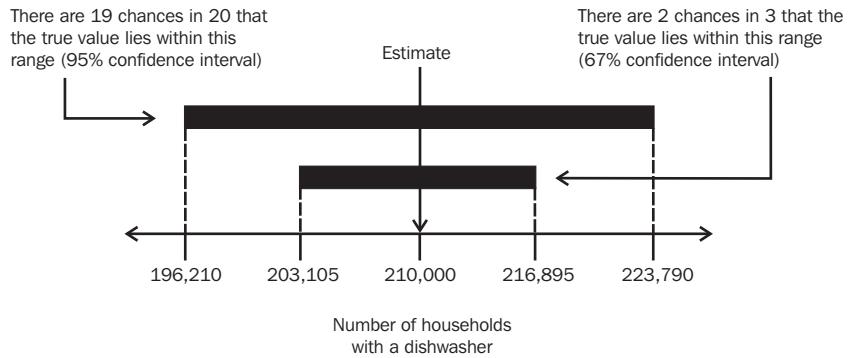
$$SE \text{ of } est = lower \text{ SE} + \left(\left(\frac{upper \text{ SE} - lower \text{ SE}}{upper \text{ est} - lower \text{ est}} \right) \times (est - lower \text{ est}) \right)$$

10 An example of the calculation and use of SEs is as follows. Table 8 shows that the estimated number of households in WA that had a dishwasher was 210,000. Since this estimate is between 200,000 and 300,000, table T1 shows that the SE will lie between 6,787 and 7,863. The approximate value of the SE can be interpolated as follows:

$$SE \text{ of } est = 6,787 + \left(\left(\frac{7,863 - 6,787}{300,000 - 200,000} \right) \times (210,000 - 200,000) \right) = 6,895$$

11 Therefore, there are about two chances in three that the true number of households in WA that had a dishwasher lies between 203,105 and 216,895, and there are about 19 chances in 20 that the value lies between 196,210 and 223,790. This example is illustrated in the diagram below:

Sampling errors *continued*



12 The SE can also be expressed as a percentage of the estimate, known as the relative standard error (RSE). The RSE is calculated by dividing the SE of an estimate by the estimate, and expressing it as a percentage. That is:

$$RSE = \frac{SE}{estimate} \times 100$$

13 For example, the RSE for the number of households that had a dishwasher is:

$$RSE = \frac{6,895}{210,000} \times 100 = 3.3\%$$

14 The RSE is a useful measure in that it provides an immediate indication of the level of error likely to have occurred due to sampling.

15 In general, the size of the SE increases as the size of the estimate increases. Conversely, the RSE decreases as the size of the estimate increases. Very small estimates are thus subject to high RSEs and are considered too unreliable for general use.

16 Only estimates with an RSE of less than 25%, and percentages based on such estimates, are considered sufficiently reliable for most purposes. Estimates with RSEs greater than or equal to 25% have been included in this publication, however, they are preceded by a single asterisk when the RSE is 25% to 50% (e.g. * 3.3) and by a double asterisk when the RSE is greater than 50% (e.g. ** 0.9). A single asterisk indicates that the estimate is subject to high sampling error and should be used with caution. A double asterisk indicates that the estimate is considered too unreliable for general use.

17 Published estimates are sometimes used to calculate the difference between two survey estimates. Such an estimate is also subject to sampling error. The sampling error of the difference between two estimates depends on the SE of each estimate and the relationship (correlation) between them. The approximate SE of the difference between two estimates (x and y) may be calculated using the following formula:

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

18 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.

19 For example, Table 8 shows that an estimated 457,700 households in Perth and 136,800 households in the Balance of WA had a top loading washing machine. This equates to a difference of 320,900 households. The standard error for each estimate is calculated using linear interpolation (as described above) and then the standard error on the estimate of the difference is calculated as:

$$SE(x - y) = \sqrt{[9,044]^2 + [5,848]^2} = 10,770$$

TECHNICAL NOTE DATA QUALITY *continued*

Sampling errors continued

20 Therefore, there are about two chances in three that the true difference between the number of households in Perth and the Balance of WA that had a top loading washing machine lies between 310,130 and 331,670, and there are about 19 chances in 20 that the value lies between 299,360 and 342,440.

T1 STANDARD ERRORS OF ESTIMATES OF WA HOUSEHOLDS

<i>Size of estimate</i>	SE	RSE
<i>no.</i>	no.	%
500	316	63.2
700	393	56.1
1 000	491	49.1
1 500	629	41.9
2 000	746	37.3
2 500	849	34.0
3 000	942	31.4
3 500	1 028	29.4
4 000	1 107	27.7
5 000	1 252	25.0
7 000	1 499	21.4
10 000	1 805	18.1
15 000	2 213	14.8
20 000	2 545	12.7
30 000	3 080	10.3
40 000	3 509	8.8
50 000	3 873	7.7
100 000	5 185	5.2
150 000	6 086	4.1
200 000	6 787	3.4
300 000	7 863	2.6
500 000	9 362	1.9
1 000 000	11 634	1.2

GLOSSARY

Airconditioner outlet	An opening in, or a device mounted on, the wall or ceiling through which air from a fixed airconditioner is directed into the room of a dwelling.
Area of usual residence	A person's area of usual residence as classified by the Statistical Region structure in the Australian Standard Geographical Classification (ASGC). The classification divides WA into two Major Statistical Regions — the Perth Statistical Division and the Balance of WA. For further information refer to <i>Australian Standard Geographical Classification</i> (cat. no. 1216.0).
Bore water	A source of groundwater brought to the surface by pump or windmill. Households can access bore water from a single household bore (used by one household only) or a multiple household bore (where a bore on one property is used by households on adjoining properties).
Dual flush toilet	A toilet that allows flushing with a small amount of water for the disposal of liquid waste or a large amount of water for the disposal of solid waste. It may have two separate buttons, or one button or lever that is pushed down for full flush and pulled up for half flush.
Evaporative fixed airconditioner	A fixed airconditioner that draws outdoor air through a water filtration system whereby some heat from the air is absorbed through water evaporation. The cooled air is then redirected indoors. For further information, see <i>Fixed airconditioner</i> .
Flat, unit or apartment	All dwellings in blocks of flats, units or apartments. These dwellings usually share a common entrance foyer or stairwell. This category also includes flats attached to houses such as granny flats, and houses converted into two or more flats.
Fixed airconditioner	An apparatus for controlling, especially lowering, the temperature of an enclosed space. It is fixed into the structure of the dwelling, usually in the wall or ceiling.
Front loading washing machine	An automatic washing machine that opens and is loaded from the front.
Gardens or lawns	Private gardens or lawns attached to a dwelling. Communal gardens (e.g. attached to flat, unit or apartment dwellings) were not included.
Hot water system	A device used for heating water in a dwelling. The energy source for heating is generally solar, gas or electricity, although some systems use other sources (e.g. wood combustion). Hot water systems are usually instantaneous or storage/tank systems. An instantaneous hot water system heats water instantly as it flows through the system, whereas a storage/tank hot water system heats water and stores it in a tank until it is needed. Solar hot water systems are predominantly storage systems.
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.
Loads of washing done last week	Loads of washing done in a washing machine in the week prior to the survey. A load is defined as all that is put in a washing machine to be washed at the same time.
Mains water supply	Water supplied to a user often through a non-natural network (piped/open channel or other carrier), and where an economic transaction has occurred for the exchange of water. Sometimes referred to as town water supply.
Mulch	Material that is put on the surface of the soil in gardens in order to reduce water evaporation and control weeds. Examples of types of mulch include grass clippings, wood chips, straw, lucerne, hay and newspaper.
Normal flow shower head	A shower head that does not have a water efficient or low flow device fitted to it.
Other dwelling	This includes caravans, cabins, houseboats, sheds, tents, humpies and other improvised homes, or houses or flats attached to a shop, office, etc.

GLOSSARY *continued*

Other toilet	A single flush toilet that has been modified (e.g. by a water displacement device or mechanical disruption of the flush mechanism) to reduce the amount of water used.
Private dwelling	A dwelling that is intended to have people live in it (e.g. house, flat, unit, caravan, houseboat, tent, etc.).
Rainwater tank	A tank used to store rainwater.
Rebate	A financial rebate offered to WA consumers for purchasing water-efficient products (such as front loading washing machines) as part of the State Government Water Strategy Incentive Program introduced in February 2003.
Refrigerated fixed airconditioner	A fixed airconditioner that cools indoor air by blowing it over a refrigeration coil and then redirecting it indoors. The refrigeration coil is cooled externally by a fan or by natural convection using outdoor air. Examples include reverse cycle systems and split systems. For further information, see <i>Fixed airconditioner</i> .
Region of usual residence	A person's region of usual residence as classified by the Statistical Region (SR) structure in the ASGC. It divides WA into seven SRs for the purpose of providing regional statistical output. For further information refer to <i>Australian Standard Geographical Classification</i> (cat. no. 1216.0) and <i>Information Paper: Regional Labour Force Statistics, September 1997</i> (cat. no. 6262.0).
Reticulation system	A system of permanently fixed pipes or tubing connected to sprinkler heads, drippers or pop-up spray heads that is used to water gardens or lawns.
Re-use of water	A broad range of practices undertaken by households to re-use water from in and around the house for the purpose of watering the garden. Examples include using sophisticated recycled water systems, collecting water from running a shower, and pouring leftover water from water bottles and vases onto gardens/lawns.
Semidetached, row or terrace house, townhouse, etc.	A dwelling that is either attached in some structural way to one or more dwellings or is separated from neighbouring dwellings by less than half a metre. It has its own private grounds and no other dwelling above or below it.
Separate house	A house that stands alone in its own grounds separated from other dwellings by at least half a metre. It may have a flat attached to it, such as a granny flat or converted garage (the flat is categorised under <i>Flat, unit or apartment</i>).
Single flush toilet	An older style toilet that has one button or lever that flushes the full volume of the cistern.
Soaker hose	A hose with small holes along its length that lets water spray out in a fine mist or drip out.
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.
Sprinkler	A portable watering device that attaches to the end of a hose and sprays water.
Swimming pool/outdoor spa	A swimming pool or outdoor spa situated in the grounds of a private dwelling. Communal swimming pools/outdoor spas (e.g. in the grounds of flat, unit or apartment blocks) were included.
Tenure type	Describes the legal right a person has to occupy a dwelling (e.g. fully owned, being purchased, rented).
Top loading washing machine	An automatic washing machine that opens and is loaded from the top.
Town water supply	See <i>Mains water supply</i> .
Twin tub	A non-automatic washing machine with two tubs that opens and is loaded from the top.

GLOSSARY *continued*

- 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 efficient shower head** A water saving device that restricts water flow through shower heads. Sometimes referred to as a low flow shower head.

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