

DWELLING

Occupants	Adult	2
	Child	2
Roof	Area	180 m2
Floor	Area	120 m2
Rainfall (annual)	Sydney	1250 mm
Days of Service / Year		365 days

Assumptions		
1	Kitchen sink tapset	5 minutes full flow/day @ 7.5 litres/min
2	Dishwasher	1 wash/day
3	Laundry tub tapset	5 minutes full flow/day
4	Washing Machine	5 wash/week
5	WC (full)	Man (1xfull) & Woman (1xfull) & 2xChildren (2xfull)
6	WC (half)	Man (2xhalf) & Woman (2xhalf) & 2xChildren (4xhalf)
7	Vanity Tap set	10 seconds per hand wash - 1 wash / toilet visit + 4 wash extra per person
8	Bath tapset	50 baths per year @ 0.2 kL per use
9	Shower tapset	based on 4 showers per day @ 5 minutes per use (1 shower per person)

DETACHED DWELLING (two storey - 4 bedroom) 2 adults 2 children			STAR RATING	FIXTURE WATER USE RATE	Time / Use (min) or per Cycle	Time Period (days)	Uses / Time period	Number of uses / Day	KILOLITRES / Day	KILOLITRES / YEAR
INTERNAL FIXTURES										
1	Kitchen sink tapset		4	7.50 litres/min	5	Daily	1	1.00	0.04	13.69
2	Dishwasher		3	13.56 litres/wash	1	Daily	1	1.00	0.01	4.95
3	Laundry tub tapset		4	7.50 litres/min	5	Daily	5	5.00	0.19	68.44
4	Washing machine		4	81.69 litres/wash	1	Weekly	5	0.71	0.06	21.30
5	WC (full)		4	4.50 litres/flush	1	Daily	4	4.00	0.02	6.57
6	WC (Half)		4	3.00 litres/flush	1	Daily	8	8.00	0.02	8.76
7	Vanity basin tapset		5	5.00 litres/min	0.17	Daily	28	28.00	0.02	8.52
8	Bath tapset	(a)	4	200.00 litres/bath use	1	Yearly	50	0.14	0.03	10.00
9	Shower tapset		3	7.90 litres/min	5	Daily	4	4.00	0.16	57.67
									0.55	199.89
EXTERNAL FIXTURES										
	Hose cock							estimate		14.00
										213.89
(a) based on bath volume x rate of use										

TABLE 1

COMMERCIAL OFFICE

Occupants	Occupants total	male	female
upper levels (@1:10m2)	339	169.5	169.5
retail level (@1:4m2)	295	98.3	196.7
20 people/office	17 offices		
20 staff/shop	15 shops		
Visitors	500	250	250
Roof Area		2170	m2
Floor Area (3 floors)	3	4860	m2
Rainfall (annual)	Sydney	1250	mm
Days of Service / Year		270 days	

Assumptions			
1	Kitchen sink tapset	office	Cups of tea / drinks of water (1 litre/person/day : 1/7.5=0.133)
2	Kitchen sink tapset	retail	Cups of tea / drinks of water (1 litre/person/day)
3	Dishwasher	office	1 Dishwasher Use / Office / Day
4	Dishwasher	retail	1 Dishwasher Use / Shop / Day
5	Urinal	office	Man twice / Day
6	Urinal	retail	Man twice / Day
7	WC (full)	office	Man (1xfull) & Woman (0.5xfull)
8	WC (half)	office	Man (0xhalf) & Woman (2xhalf)
9	WC (full)	retail	Man (1xfull) & Woman (0.5xfull)
10	WC (half)	retail	Man (0xhalf) & Woman (2xhalf) + 10% of visitors (1xhalf)
11	Vanity basin tapset	office	10 sec / hand wash - 1 wash / toilet visit + 1 wash extra per person
12	Vanity basin tapset	retail	10 sec / hand wash- 1 wash/ toilet visit + 1 wash extra / person(staff only) + 1 wash / 10% of visitors
13	Cleaners sink tapset		say 4 x 20 litres / day

COMMERCIAL OFFICE (three storey) mixed retail and offices			STAR RATING	FIXTURE WATER USE RATE	Time / Use (min) or per Cycle	Time Period (days)	Uses / Time period	Number of uses / Day	KILOLITRES / Day	KILOLITRES / YEAR
INTERNAL FIXTURES										
1	Kitchen sink tapset	office	3	7.50 litres/min	0.13	Daily	339.00	339.00	0.34	91.53
2	Kitchen sink tapset	retail	3	7.50 litres/min	0.13	Daily	295.00	295.00	0.30	79.65
3	Dishwasher	office	4	13.56 litres/wash	1	Daily	16.95	16.95	0.23	62.06
4	Dishwasher	retail	4	13.56 litres/wash	1	Daily	14.75	14.75	0.20	54.00
5	Urinal	office	4	2.10 litres/flush	1	Daily	339.00	339.00	0.71	192.21
6	Urinal	retail	4	2.10 litres/flush	1	Daily	196.67	196.67	0.41	111.51
7	WC (full)	office	4	4.50 litres/flush	1	Daily	254.25	254.25	1.14	308.91
8	WC (half)	office	4	3.00 litres/flush	1	Daily	339.00	339.00	1.02	274.59
9	WC (full)	retail	4	4.50 litres/flush	1	Daily	196.67	196.67	0.89	238.95
10	WC (half)	retail	4	3.00 litres/flush	1	Daily	443.33	443.33	1.33	359.10
11	Vanity basin tapset	office	4	5.00 litres/min	0.17	Daily	1271.25	1271.25	1.06	286.03
12	Vanity basin tapset	retail	4	5.00 litres/min	0.17	Daily	1131.67	1131.67	0.94	254.63
13	Cleaners sink tapset		3	7.50 litres/min	2.67	Daily	4.00	4.00	0.08	21.60
									8.65	2334.77
EXTERNAL FIXTURES										
Hose cock						estimate				14.00
										2348.77

TABLE 2

CHILD CARE FACILITY

Occupants	Occupants total	male	female
Children	60	30.0	30.0
Staff	5	1.7	3.3
Visitors	0	0	0
Roof Area		550	m2
Floor Area		390	m2
Rainfall (annual)	Sydney	1250	mm
Days of Service / Year		270	days

Assumptions	
1 Kitchen sink tapset	Cups of tea / drinks of water (1.0 litre/staff/day : 1.0/7.5=0.133) + (0.5 litre/children/day)
2 Dishwasher	1 wash / 20 children / meal (1 meals /day) + 1 wash / day (staff)
3 Trough taps (toilets)	5 seconds / hand wash - 1 wash / toilet visit + 2 wash extra / child
4 Laundry tub taps (laundry)	half fill tub 1 times / day - (Tub 70L full)
5 Laundry tub taps (craft)	quarter fill tub 4 times / day - (Tub 70L full)
6 Washing machine	1 wash / day
7 WC-adult (full)	Staff - 1 (full) / day
8 WC-adult (half)	Staff - 2 (half) / day
9 WC-child	Children - 2 visits / day
10 Vanity basin tapset	10 seconds / Staff - 1 hand wash / toilet visit + 4 wash extra / staff
11 Bath tapset	1 bath / day

CHILD CARE FACILITY (one storey) 60 child capacity 6 staff		STAR RATING	FIXTURE WATER USE RATE	Time / Use (min) or per Cycle	Time Period (days)	Uses / Time period	Number of uses / Day	KILOLITRES / Day	KILOLITRES / YEAR
INTERNAL FIXTURES									
1	Kitchen sink tapset	3	7.50 litres/min	0.13	Daily	35.00	35.00	0.04	9.45
2	Dishwasher	3	13.56 litres/wash	1	Daily	4.00	4.00	0.05	14.64
3	Trough taps (toilets)	3	5.00 litres/min	0.08	Daily	240.00	240.00	0.10	27.00
4	Laundry tub taps (laundry)	4	7.50 litres/min	4.67	Daily	1.00	1.00	0.04	9.45
5	Laundry tub taps (craft)	4	5.00 litres/min	3.50	Daily	4.00	4.00	0.07	18.90
6	Washing machine	4	81.69 litres/wash	1	Daily	1.00	1.00	0.08	22.06
7	WC-adult (full)	4	4.50 litres/flush	1	Daily	5.00	5.00	0.02	6.08
8	WC-adult (half)	4	3.00 litres/flush	1	Daily	10.00	10.00	0.03	8.10
9	WC-child	4	3.34 litres/flush	1	Daily	120.00	120.00	0.40	108.22
10	Vanity basin tapset	4	5.00 litres/min	0.17	Daily	35.00	35.00	0.03	7.88
11	Bath tapset	4	200.00 litres/wash	1	Daily	1.00	1.00	0.20	54.00
								1.06	285.77
EXTERNAL FIXTURES									
	Hose cock						estimate		14.00
									299.77

TABLE 3

PRIMARY SCHOOL

Occupants	Occupants total	male	female	
Staff (class)		7	2.3	4.7
Staff (admin)		7	2.3	4.7
Children		210	105.0	105.0
Roof Area	7 module 2 storey block	500	m2	
	administration building	475	m2	
Floor Area	7 module 2 storey block	770	m2	
	administration building	350	m2	
Rainfall (annual)	Sydney	1250	mm	
Days of Service / Year		203	days	

Assumptions		
1	Kitchen sink tapset	admin Cups of tea / drinks of water (1 litre / staff / day : 1/7.5=0.133) + (student 0.5L / day)
2	WC - (full)	admin Man (1xfull) & Woman (1xfull) - Staff
3	WC - (half)	admin Man (0xhalf) & Woman (2xfull) - Staff
4	Urinal stalls	admin Man (2xhalf) - Staff
5	WC - (full)	ablution Boy (0.5xfull) & Girl (0.5xfull) - Students
6	WC - (half)	ablution Boy (0xhalf) & Girl (2xfull) - Students
7	Urinal stalls	ablution Boy (2xhalf) - Students
8	Laundry tub tapset	Art quarter fill tub 4 times / day - (Tub 70L full)
9	Washing machine	Art/sport 1 wash / day
10	Vanity basin tapset	admin 10 seconds / Staff - 1 hand wash / toilet visit + 2 wash extra / staff
11	Vanity basin tapset	ablution 10 seconds / Student - 1 hand wash / toilet visit + 1 wash extra / student
12	Shower tapset	sport 1 shower / day - 5 min shower
13	Cleaner Sink	say 4 x 20 litres / day

PRIMARY SCHOOL (two storey homebase) (administration block)			STAR RATING	FIXTURE WATER USE RATE	Time / Use (min) or per Cycle	Time Period (days)	Uses / Time period	Number of uses / Day	KILOLITRES / Day	KILOLITRES / YEAR
INTERNAL FIXTURES										
1	Kitchen sink tapset	admin	3	7.50 litres/min	0.13	Daily	119.00	119.00	0.12	24.16
2	WC - (full)	admin	3	4.50 litres/flush	1	Daily	14.00	14.00	0.06	12.79
3	WC - (half)	admin	4	3.00 litres/flush	1	Daily	18.67	18.67	0.06	11.37
4	Urinal stalls	admin	4	2.10 litres/flush	1	Daily	9.33	9.33	0.02	3.98
5	WC - (full)	ablution	4	4.50 litres/flush	1	Daily	105.00	105.00	0.47	95.92
6	WC - (half)	ablution	4	3.00 litres/flush	1	Daily	210.00	210.00	0.63	127.89
7	Urinal stalls	ablution	4	2.10 litres/flush	1	Daily	210.00	210.00	0.44	89.52
8	Laundry tub tapset	Art	4	5.00 litres/min	3.50	Daily	4.00	4.00	0.07	14.21
9	Washing machine	Art/sport	4	81.69 litres/wash	1	Daily	1.00	1.00	0.08	16.58
10	Vanity basin tapset	admin	4	5.00 litres/min	0.17	Daily	70.00	70.00	0.06	11.84
11	Vanity basin tapset	ablution	4	5.00 litres/min	0.17	Daily	420.00	420.00	0.35	71.05
12	Shower tapset	sport	4	7.90 litres/min	5.00	Daily	1.00	1.00	0.04	8.02
13	Cleaners sink taps	admin	4	7.90 litres/min	2.53	Daily	4.00	4.00	0.08	16.24
									2.48	503.57
EXTERNAL FIXTURES										
	Hose cock							estimate		14.00
										517.57

TABLE 4

AGED CARE FACILITY

Occupants	Occupants total	male	female
Patients	60	30.0	30.0
Staff	15	5.0	10.0
Visitors	20	10	10
Roof Area		2000	m2
Floor Area		1800	m2
Rainfall (annual)	Sydney	1250	mm
Days of Service / Year		365	days

Assumptions		
1	Kitchen sink tapset	Cups of tea / drinks of water (1.5 litre/person/day : 1.5/7.5=0.2)
2	Dishwasher	1 wash / 20 patients / meal (3 meals /day) + 1 wash / day (staff)
3	Laundry tub taps	30% of patients require a half tub of water / day for soaking (Tub 70L - full)
4	Washing machine	Industrial washer - 1 wash / 20 patients
5	WC (full)	Man (1xfull) & Woman (1xfull) - Patients & Staff
6	WC (half)	Man (3xhalf) & Woman (3xhalf) - Patients & Staff
7	Vanity basin tapset	10 seconds / hand wash - 1 wash / toilet visit + 1 wash extra / patient + staff hand wash once at 2 hr intervals for 12 hr's
8	Shower tapset	1 showers / patient / day @ 5 minutes per use
9	Hairdresser basin tapset	6 hair cuts / patient / year @ 5min / cut
10	Cleaners sink tapset	say 4 x 20 litres / day

AGE CARE FACILITY (one & two storey) 60 patient capacity 15 staff		STAR RATING	FIXTURE WATER USE RATE	Time / Use (min) or per Cycle	Time Period (days)	Uses / Time period	Number of uses / Day	KILOLITRES / Day	KILOLITRES / YEAR
INTERNAL FIXTURES									
1	Kitchen sink tapset	3	7.50 litres/min	0.20	Daily	75.00	75.00	0.11	41.06
2	Dishwasher	3	13.56 litres/wash	1	Daily	10.00	10.00	0.14	49.49
3	Laundry tub taps	3	7.50 litres/min	4.67	Daily	20.00	20.00	0.70	255.50
4	Washing machine	4	665.00 litres/wash	1	Daily	3.00	3.00	2.00	728.18
5	WC(full)	4	4.50 litres/flush	1	Daily	75.00	75.00	0.34	123.19
6	WC (half)	4	3.00 litres/flush	1	Daily	225.00	225.00	0.68	246.38
7	Vanity basin tapset	4	5.00 litres/min	0.17	Daily	465.00	465.00	0.39	141.44
8	Shower tapset	4	7.90 litres/min	5.00	Daily	60.00	60.00	2.37	865.05
9	Hairdresser basin tapset	4	5.00 litres/min	5.00	Yearly	360.00	0.99	0.02	9.00
10	Cleaners sink tapset	4	7.90 litres/min	2.53	Daily	4.00	4.00	0.08	29.20
								6.82	2488.48
EXTERNAL FIXTURES									
	Hose cock						estimate		14.00
									2502.48

TABLE 5