

INDIVIDUAL HOUSEHOLD - AVERAGE DAILY CONSUMPTION PER WATER USE

Water use	Amount in liters			%age of average daily consumption			Average
	House hold -3	Household -2	Household -1	House hold -3	Household -2	Household -1	
cooking	10.4	10.333	14.167	6	7	10	7.675
laundry	28	26.167	23.000	16	19	16	16.785
kitchen	11.04	8.750	9.500	6	6	7	6.356
drinking	1.148	1.047	1.200	1	1	1	0.741
personal hygiene	24.028	21.633	36.333	14	15	25	18.034
toilet	93	80.000	57.500	53	57	40	49.771
car washing	8	0.000	0.000	5	0	0	1.518
Other (controlling dust)	0	0.833	2.500	0	1	2	0.773

Wastewater stream	% amount
sewage	58.2
sullage	41
other	2

White South African households (Morris, 1971)

	%age of mean daily per capita consumption
cooking	2
Washing (clothes, dishes, and other)	18
personal hygiene	24
General cleaning	3
toilet	27
Physiological needs	1
recreation + gardening	25

Western style households - Canada, US and Sweden

	mean %age volume used
kitchen	9
Bathroom	26
laundry	18
toilet flushing	47

rural households- Lesotho

	%age of mean daily per capita consumption
Kitchen water (cooking, dish washing, drinking water)	45.3
personal hygiene (Bathroom)	15
Clothes washing	22
Other (un-specified)	9.7
Domestic animals	2.4
gardening (vegetable)	5.6

Alexandra west bank shacks	Mean %age per capita consumption
Kitchen water (cooking, dish washing, drinking water)	15
laundry	17.03
Personal hygiene	18.06
toilet	51.3
car washing	1.6
Other	0.59

INDIVIDUAL HOUSEHOLD WATER CONSUMPTION AND WASTE WATER DISPOSAL IN ALEXANDRA WEST BANK-household 3															
HHLD UNIT	DATE	TIME OF DAY	NO. OF OCCUPANTS	QUANTITIES CONSUMED IN LITRES AND PURPOSES FOR USE								Total in litres	mean, l/c/d	WWATER disposed	WW as %ge
				Cooking	laundry	kitchen	drinking	personal	toilet	car-wash	other				
HOUSE HOLD UNIT -1	19/04/04	6:00-6:30 am	4	0	0		0	3.3	0	0	0	3.3			
		6:30-7:30 am	3	1	0	0.9	0	3.3	15	0	0	20.2			
		7:30-8:00 am	2	1	0	1	0	3.3	0	0	0	5.3			
		9:30-10:00 am	0	0	0	0	0	0	0	0	0	0			
		10:00-12:00 am	1	1	60	10	0.6	6	15	0	0	92.6			
		12:00-14:00 pm	1	3	0	1	0.3	0	0	0	0	4.3			
		14:00-17:00 pm	3	0	0	0	0	0	30	40	0	70			
		17:00-19:30 pm	4	5	0	5	1.2	0	15	0	0	26.2			
		19:30-20:00 pm	4	0	0	0	0.6	0	15	0	0	15.6			
			11	60	17.9	2.7	15.9	90	40		237.5	59.375	223.8	94.23	
	20/04/04	6:00-6:30 am	4	0	0	0	0	3.3	0	0	0	3.3			
		6:30-7:30 am	3	1	0	1.5	0	3.3	0	0	0	5.8			
		7:30-8:00 am	2	1	0	0	0.34	3.8	0	0	0	5.14			
		9:30-10:00 am	2	0	0	0	0	0	15	0	0	15			
		10:00-11:30 am	1	1	0	0	0.3	5.34	0	0	0	8.64			
		11:30-13:00 am/pm	1	0	0	0	0	0	0	0	0	0			
		13:00-15:00 pm	3	0	60	0	0	8	45	0	0	113			
		15:00-17:00 pm	3	2	0	3	0.6	2	0	0	0	7.6			
		17:00-20:00 pm	4	4	0	2	0.6	3	0	0	0	9.6			
	20:00-21:00 pm	4	0	0	0	0	0	15	0	0	15				
		9	60	8.5	1.84	28.74	75	0	0	183.08	45.77	172.24	94.08		
21/04/04	6:15-6:40 am	4	0	0	0	0	2	0	0	0	2				
	6:40-7:30 am	3	1	0	1	0	3	15	0	0	20				
	7:30-8:00 am	2	0	0	1	0	3	0	0	0	4				
	10:00-11:00 am	2	0	0	0	0	0	15	0	0	15				
	11:00-13:00 am/pm	1	2	10	4	0	5	0	0	0	21				
	13:00-17:00 pm	3	0	0	0	0	1	15	0	0	16				
	17:00-19:30 pm	4	6	0	5	0	2	30	0	0	43				
	19:30-21:30 pm	4	0	0	0	0	3	30	0	0	33				
			9	10	11	0	19	105	0	0	154	38.5	145	94.18	
22/04/04	5:50-6:30 am	4	1	0	0.5	0	3.3	15	0	0	19.8				
	6:30-7:30 am	3	1	0	1	0	3.3	0	0	0	5.3				
	7:30-8:00 am	2	1	0	2	0	8	15	0	0	26				
	8:00-13:00 am/pm	0	0	0	0	0	5	30	0	0	35				
	13:00-17:00 pm	3	0	0	0	0	1	0	0	0	1				
	17:00-20:00 pm	4	6	0	0	0	2	0	0	0	8				
	21:00-22:00	4	0	0	0	0	3	30	0	0	33				
			9	0	3.5	0	25.6	90	0	0	128.1	32.025	119.1	92.97	
	23/04/04	6:15-6:30 am	4	2	0	1	0	2	0	0	0	5			
6:30-7:45 am		3	1	0	0.5	0	3	15	0	0	19.5				
7:45-8:30 am		2	2	0	1	0	2	15	0	0	20				
11:30-14:00 am/pm		1	0	10	2	0.3	6	15	0	0	33.3				
14:00-17:00 pm		3	3	0	3	0.6	0	30	0	0	36.6				
17:00-19:45 pm		4	6	0	3	0.3	2	15	0	0	26.3				
19:45-20:30 pm		4	0	0	4	0	15.9	15	0	0	34.9				
			14	10	14.5	1.2	30.9	105	0	0	175.6	43.9	160.4	91.34	
24/04/04			OCCUPANTS	OUT	FOR	THE	WEEKEND								
totals											878.28		820.54	93.4	
											175.656		164.108		
											43.914		41.027		

INDIVIDUAL HOUSEHOLD WATER CONSUMPTION AND WASTE WATER DISPOSAL IN ALEXANDRA WEST BANK-household 1

HHLD UNIT	DATE	TIME OF DAY	NO. OF OCCUPANTS	QUANTITIES CONSUMED IN LITRES AND PURPOSES FOR USE								Total in litres	wastewater disposed disposed	WW as a %ge
				Cooking	laundry	kitchen	drinking	personal	toilet	car-wash	other			
HOUSE HOLD UNIT - 3	19/04/04	5:00-7:00 AM	6	4	0	2	0	24	15	0	0	45		
		11:00-13:00 AM/PM	3	4	0	3	0.6	8	0	0	1	16.6		
		13:00-17:00 PM	3	0	0	0	0	0	0	0	0	0		
		17:00-18:00 PM	6	6	0	3	0.9	10	15	0	0	34.9		
		18:00-20:30 PM	6	2	0	1	0	0	15	0	0	18		
	20/04/04			16	0	9	1.5	42	45	0	1	114.5	97	84.72
		5:30-7:00 AM	6	3	0	1	0	20	0	0	2	26		
		10:45-13:30 AM/PM	3	5	15	4	0.6	25	15	0	2	66.6		
		13:30-17:00 PM	3	0	0	0	0.3	0	15	0	0	15.3		
		17:00-19:30 PM	6	6	0	3	0.6	0	15	0	0	24.6		
	21/04/04	19:30-21:00 PM	6	0	0	0	0	0	30	0	0	30		
				14	15	8	1.5	45	75	0	4	162.5	147	90.46
		5:00-7:00 AM	6	3	0	2	0	18	15	0	0	38		
		10:45-14:00 AM/PM	3	5	60	5	0.6	10	0	0	0	80.6		
		14:30 -17:00 PM	3	0	0	0	0	0	30	0	0	30		
	22/04/04	17:00-19:00 PM	6	4	0	5	0	0	15	0	0	24		
				12	60	12	0.6	28	60	0	0	172.6	160	92.70
		6:00-7:00 AM	6	4	0	2	0.9	15	15	0	2	38.9		
		11:00-14:30 AM/PM	3	3	10	3	0.6	16	0	0	0	32.6		
		14:30-17:00 PM	3	0	0	0	0	0	0	0	0	0		
	23/04/04	17:00-19:00 PM	6	5	5	4	0.3	0	0	0	0	14.3		
		19:00-20:00 PM	6	2	0	1	0	0	15	0	0	18		
				14	15	10	1.8	31	30	0	2	103.8	88	84.78
		5:30-7:00 AM	6	4	0	2	0	15	15	0	2	38		
		10:30-15:00 AM/PM	4	3	30	4	0	14	15	0	0	66		
	24/04/04	17:00-19:00 PM	7	7	0	4	0.9	0	15	0	0	26.9		
		19:00-21:00 PM	7	4	0	2	0	10	30	0	0	46		
				18	30	12	0.9	39	75	0	2	176.9	158	89.32
		9:00-11:30 AM	7	4	18	3	0.6	36	15	0	6	82.6		
		11:30-18:00 AM/PM	5	3	0	2	0.3	0	15	0	0	20.3		
		18:00-21:00 PM	7	4	0	1	0	0	30	0	0	35		
	TOTALS			11	18	6	0.9	36	60	0	6	137.9	126	91.37
												868.2	776	89.38
												144.7	129.33	
												24.12	21.56	

INDIVIDUAL HOUSEHOLD WATER CONSUMPTION AND WASTE WATER DISPOSAL IN ALEXANDRA WEST BANK-household 2

HHLD UNIT	DATE	TIME OF DAY	NO. OF OCCUPANTS	QUANTITIES CONSUMED IN LITRES AND PURPOSES FOR USE								Total in litres	wastewater disposed	WW as %ge
				Cooking	laundry	kitchen	drinking	personal	toilet	car-wash	other			
HOUSE HOLD - UNIT 2	19/04/04	7:00 -8:00 AM	3	4	0	2	0.6	5.9	45	0	0	57.5		
		8:00 - 17:00 AM/PM	0	0	0	0	0	0	0	0	0	0		
		17:00 - 19:00 PM	3	6	15	4	0	15	15	0	0	55		
		19:00 - 20:30 PM	3	2	0	1	0	0	30	0	0	33		
				12	15	7	0.6	20.9	90	0	0	145.5	132.9	91.34
	20/04/04	6:00-7:00 AM	3	0	0	0	0	0	15	0	0	15		
		7:00 -8:00 AM	3	3	0	1.5	0	6.9	0	0	0	11.4		
		8:00 - 17:00 AM/PM	0	0	0	0	0	0	15	0	0	15		
		17:00 - 19:00 PM	3	6	0	4	0	15	0	0	5	30		
		19:00-20:00 PM	3	2	0	0	0.3	0	0	0	0	2.3		
		20:00-21:00 PM		0	0	0	0	0	30	0	0	30		
				11	0	5.5	0.3	21.9	60	0	5	88.7	77.4	87.26
	21/04/04	6:30-7:00 AM	3	0	0	0	0	0	15	0	0	15		
		7:00 -8:00 AM	3	3	0	3	0	0	15	0	0	21		
		8:00 - 17:00 AM/PM	0	0	0	0	0	2	15	0	0	17		
		17:00 - 19:00 PM	3	6	0	4	0.9	0	15	0	0	25.9		
		19:00-20:00 PM	3	3	0	5	0	15	30	0	0	53		
				12	0	12	0.9	17	90	0	0	116.9	104	88.96
	22/04/04	6:30 -8:00 AM	3	4	0	3	0	5	30	0	0	42		
		8:00 - 17:00 AM/PM	3	0	0	0	0	0	15	0	0	15		
		17:00 - 19:30 PM	3	4	10	4	0.9	1	15	0	0	34.9		
		19:00-20:30 PM	3	2	0	5	0	13	15	0	0	35		
				10	10	12	0.9	19	75	0	0	126.9	116	91.41
	23/04/04	6:00-7:45 AM	3	0	0	0	0	0	15	0	0	15		
		7:45-8:15 AM	3	0	0	0	0	3.9	0	0	0	3.9		
		8:15-17:00 AM/PM	0	0	0	0	0	0	45	0	0	45		
		17:00-20:00 PM	3	4	0	5	0.9	2	0	0	0	11.9		
		20:00-24:00 PM/AM	3	0	7	0	0	13	15	0	0	35		
				4	7	5	0.9	18.9	75	0	0	95.8	90.9	94.89
	24/04/04	6:00-8:00 AM	3	3	0	2	0	4	15	0	0	24		
		8:00-10:00 AM	1	0	100	0	0	2	15	0	0	117		
		10:00-12:00 AM	1	2	25	4	1.02	10	0	0	0	42.02		
		12:00-15:00 PM	1	0	0	0	0	0	15	0	0	15		
		15:00-17:00 PM	3	2	0	1	0	1.1	0	0	0	4.1		
		17:00-19:30 PM	3	6	0	4	1.36	15	30	0	0	56.36		
		19:30-00:45 PM/AM	3	0	0	0	0.3	0	15	0	0	15.3		
				13	125	11	2.68	32.1	90	0	0	273.78	258.1	94.27
		TOTALS										847.58	709.4	83.70
												141.26	118.23	
												47.09	39.41	