

H24 Appendix: Wastewater Flow Design Allowances for Unreticulated Wastewater Treatment, Storage and Disposal Systems

Design flows should be calculated from the maximum possible number of persons occupying the premises to be served, and a per capita wastewater flow allowance according to the nature of that occupancy.

TABLE 1: Wastewater Flow Design Allowances in litres/person/day and Design Occupancy Allowances

Design Flow Allowances – Dwellings			
Source	On-site roof water tank supply	Bore, spring or restricted supplementary supply to rain water tank	Unrestricted supply
Households - All waste	180	200	Note (1)
Households – Blackwater ⁽²⁾	50	60	Note (1)
Households – Greywater Greywater-general ⁽³⁾ Greywater-heavy ⁽⁴⁾ Greywater-lite ⁽⁵⁾	130 Note (4) Note (5)	140 Note (4) Note (5)	Note (1)
<p>(1) Site specific flow rates shall be determined by the designer.. (2) Source - Toilet only (3) Source - Greywater-general - Shower, bath, handbasin, laundry tub, washing machine, kitchen (4) Source - Greywater- heavy - Laundry tub and kitchen. Calculate as 10% to 20% of Greywater-general flow (5) Source - Greywater-lite - Shower, bath and washing machine. Calculate as 80% to 90% of Greywater-general flow</p>			
Design Occupancy Allowances – Dwellings			
Number of Bedrooms		Occupancy for design purposes	
1		2	
2		4	
3		5	
4		6	
5		7	
More than 5 bedrooms within the dwelling		Add 1 for each additional room	
Additional rooms where the room is able to be closed off for privacy such as "games", "family" "recreation", "study", "office", "work" rooms, and which could potentially be used as bedrooms.		Add 1 for each additional room.	
Room or unit ancillary to the main dwelling that is built to habitable standard and has ablution facilities attached.		Apply occupancy allowances for dwellings.	

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Room or unit ancillary to the main dwelling that is built to habitable standard but without ablution facilities attached.	Apply 1 for each additional room
Design occupancy shall allow for peak occupancy. Holiday homes tend to have intermittent but greater occupancy than a continuously occupied dwelling. Design allowances must allow for the peak occupancy.	
Design Flow and Design Occupancy Allowances Commercial, Accommodation and Institutional Buildings	
Motels/Hotels	
- Guests/resident staff with on site laundry	180
- Guests/resident staff with off site laundry	150
- Non-resident staff	40
- Reception room	30
- Bar trade (per customer)	10 - 20
- Restaurant (per customer)	30
Guests Customers Staff	Maximum Occupancy/Number of beds Highest daily number over 7 day period - peak season Maximum number of staff
Restaurants/Bar/Café with restroom facilities	
- dinner	30
- lunch	25
- bar trade	10 - 20
- staff	40
Café/food premises without restroom facilities	
Customers	15
Staff	40
Customer Staff	Highest daily number over 7 day period - peak season Maximum number of staff
Marae	
- Day users	15
- Day users and day visitors	40
- Day plus overnight visitors	150
Maximum number of day users, day visitors and overnight visitors. Assumes that day users have no meals provided; day visitors and overnight visitors have lunches and dinners provided; and that overnight visitors have access to showers but not laundry facilities.	

Community Halls and Churches		
- banqueting		30
- meetings or gatherings		15
Highest daily number over 7 day period		
Work Places non-resident		
Standard fixtures and showers		60
Standard fixtures excluding showers		40
Maximum number of staff per shift		
Child Care Centres & Te Kohanga Reo		
With in-house laundry service per child		60
With external laundry service per child		40
Staff		40
Maximum number of staff and children		
Camping Grounds and Campervan Parks		
	Fully serviced	Recreation areas
On-site roof water tank supply	100	50
Bore, spring or restricted supplementary supply	130	65
Reticulated unrestricted community supply	140	65
Maximum number of campers or occupants allowing 3.5 campers per camp-site Recreation areas with no showers or communal cooking facilities		
Schools		
On-site roof water tank supply		30
Bore, spring or restricted supplementary supply		40
Reticulated unrestricted community supply		50
Maximum number of staff and children		
Hospitals/Rest Homes		
On-site roof water tank supply		220
Bore, spring or restricted supplementary supply		250
Reticulated unrestricted community supply		250
Staff non-resident		40
Staff resident		180
Maximum Occupancy/Number of beds		

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Maximum number of staff	
Public Toilets	
With water control features	10 - 20
Without water control features	15 - 25
Highest daily number of users over 7 day period - peak season	
Construction Camps/Holiday Camps/Training Accommodation facilities/Lodging Facilities	
On-site roof water tank supply	140
Bore, spring or restricted supplementary supply	150
Reticulated unrestricted community supply	150
Maximum Occupancy/Number of beds	