



Supplement to Regulation 29 and Schedule 9 – Wastewater system loading rates

This factsheet is designed to be read in conjunction with Regulation 29 and Schedule 9 of the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974* (Regulations).

This supplement does not cover every possible application and system designers are asked to contact the Water Unit of the Department of Health for further information if a particular use premises type is not listed in this factsheet.

The following table forms the Department of Health WA’s assessment criteria for systems assessed under the Regulations.

Residential Premises

The sizing of residential premises hydraulic loading is based on Schedule 9 of the Regulations. For residential premises with 6 or more bedrooms, the hydraulic loading will be sized basing on the expected occupancy rate and the design flow rate of 150L/person/day.

Table 1: Hydraulic loading rates for residential premises

Type of residential premises	Number of bedrooms	Volume of wastewater (L)
Standard residential dwelling	2 or more	564
	3	761
	4 -5	829
	6 or more	150L/person/day Local government to determine the expected occupancy rate.
Ancillary accommodation	Variable number of bedrooms with total ancillary accommodation floor space not exceeding 70m ²	The minimum occupancy rates are as follow: <ul style="list-style-type: none"> • 2 persons for the first bedroom • 1 person for each other bedroom at 150L/person/day

Type of residential premises	Number of bedrooms	Volume of wastewater (L)
Aged home accommodation	2 or more	564
	3	761
	4 -5	829
	Developments with communal system	Hydraulic loading calculation basing on actual occupancies can be permitted if local government planning approval sets occupancy limits for the entire development. 150L/person/day

Please note that the sizing of septic tanks must still be done in accordance with Regulation 28 of the Regulations and the sizing method is different from what is prescribed in Table 1.

Non-residential Premises

The wastewater system loading rates prescribed in Regulation 29 are limited to a number of broad applications. The purpose of this fact sheet is to provide designers of wastewater and associated disposal systems with a more comprehensive list of equivalent premises and uses. The figures below are to be read in conjunction with Regulation 29(1).

Table 2: Human waste hydraulic loading rates

Type of Premises (Regulation 29)	Equivalent Use	Combined Flow (L/person/day)
Hotel	Minesite Accommodation Camp Units	180
Motel		140
School (boarding)		140
School (day)	Child care centre (6 hours contact time)	45
Public Building (frequent use)	Bakery sit in customers (per sitting) Café sit in customers (per sitting) Place of worship (with cooking and catering facilities) Health centre staff (non-showering) Minesite office facilities Offices (non-showering staff) Restaurants sit in customers (per sitting) Winery sit in customers – Café and food catering facilities (per sitting)	30

Type of Premises (Regulation 29)	Equivalent Use	Combined Flow (L/person/day)
Public Building (infrequent use)	Airport (Non-staff) Place of worship (with no cooking facilities) Community hall Hardware stores Health centre patients (non-showering) Library Petrol station customers	10
Caravan Parks	3 persons / caravan park bay 2 persons / tent site Park homes / chalets / Standard short-stay holiday houses 2 or less bedrooms/dwelling 3 bedrooms/dwelling 4 or more bedrooms/dwelling Large short-stay holiday houses (>6 persons) / Eco-tourism accommodation facilities	140 140 564/dwelling 761/dwelling 829/dwelling 140
Swimming Pool		15
Drive-in theatres	2 persons per car	10
Factories & Shops	Bakery staff Café staff Caravan park staff member (not living onsite) Gym (with showers) Health centre patients (using shower facilities) Office staff (using shower facilities) Restaurant staff Warehouse staff Workshop staff	70
Construction camps (temporary)		45
Clubs	Men's shed	15
Clubs (licensed)		35

There are other types of wastewater generating activities that are not specified by Regulation 29. Under these circumstances the following will apply:

Table 3: Commercial / industrial waste hydraulic loading rates

Wastewater Source	Examples	Activity	Total Flow (Liters/day)
Food premises/ Food production	Cafés, Restaurants, Bakeries, etc.	Cooking and food production operations (eg. equipment and floor wash down) - excludes personal hygiene	Refer to Note 1
Commercial waste streams	Winery Brewery Abattoir	Bottle rinsing Wash down Processing	Systems must be separate and not combined with any human waste stream. Also Refer to Note 1
Non-human waste systems	Washdown bays Carwash Dog kennels Horse stables	Wash down	

Note:

- 1) System owner to propose wastewater / liquid waste hydraulic loading. Hydraulic loading must be based on peak flow events. The following controls will be implemented:
 - Metering of wastewater / liquid waste volumes produced
 - System owner to ensure the maximum capacity of the system is not exceeded

More information

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