

## Aerobic wastewater treatment system design criteria for towns and other large developments

This information is provided to assist with the sizing and design of a wastewater collection and treatment system to serve premises in a town or other large development (such as a tourist facility, Aboriginal community etc).

Where the number of persons in the premises exceeds the number listed in the table below, then the actual number of persons is to be used for calculating the load for that premises.

The design of a wastewater scheme needs to take into account peak or surge loads. Therefore, the data for the number of persons per premises in the table is graduated to reflect larger variation compared to average occupation for smaller schemes.

### Residential premises

<i>Number of premises</i>	<i>Persons per premises</i>	<i>Flow per person per day (litres)</i>	<i>Grams BOD<sub>5</sub> per person per day (sewage)</i>	<i>Grams BOD<sub>5</sub> per person per day (ST effluent)</i>
1 to 4	6	150	70	50
5 to 24	5	170	60	40
25 to 69	4	170	60	40
70 or more	3.5	170	60	40

### Commercial and non-standard premises

Collection and treatment systems receiving septic tank effluent, or raw sewage from commercial premises, or non-standard premises having a population loading greater than indicated in the above table need to be designed in accordance with the number of persons using the premises.

The hydraulic and organic load criteria set out in the SAHC Code: 'Waste Control Systems – Standard for the Construction, Installation and Operation of Septic Tank Systems in SA' including Supplements A & B can be used to define design loading (see our [Standard Onsite Systems](#) web page). If other criteria are used, it must be acceptable to the approving authority.

Trade waste discharges are not included in the above criteria.

### Defined townships

Where the number of premises exceeds 70 or the population exceeds 250, the collection and treatment system loading may be designed on the basis of the population plus seasonal variations and an allowance for an agreed projected population growth.

### Further information

- Go to our [Wastewater collection and treatment systems for towns and other large developments](#) web page
- Contact SA Health's Wastewater Management Unit (details next page).

# Wastewater Fact Sheet

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