



**Code for Establishing and Applying Property Units  
as a Factor for the Imposition of Annual Service Charges for  
Community Wastewater Management Systems**

**24 April 2012**



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## 1. INTRODUCTION

### 1.1 Definitions

In this Code, unless the contrary intention appears:

“the Act” means the Local Government Act 1999, incorporating any amendments made from time to time;

“Consultant” means the entity engaged by a Council to design and specify a CWMS;

“Council” means a municipal or district Council established or continuing in existence under the Act;

“Property Unit” means a unit used to calculate the average measurement of effluent volume, as defined in Clause 2 of this Code;

“the Regulations” means the *Local Government (General) Regulations 1999*, incorporating any amendments made from time to time;

“CWMS” means a Community Wastewater Management System”

“Community Wastewater Management System” means any system or scheme provided or made available by a Council for the collection, treatment or disposal (including by recycling) of wastewater and includes a septic tank effluent drainage scheme;

“Trade Wastes” means liquid waste from any industry, business, trade or manufacturing premises, other than domestic waste water, produced by the carrying out of an industrial or manufacturing process or carrying on of a business of any kind

### 1.2 Scope

Section 155 of the Act provides that a Council may impose a service rate, an annual service charge or a combination of both on land to which it provides, or makes available, a prescribed service. A “prescribed service” is defined to mean the collection, treatment or disposal (including by recycling) of waste. Section 155, therefore, entitles Councils to recover the costs associated with the provision of a CWMS for the purpose of collecting, treating and disposing of waste by imposing either a **service rate, an annual service charge** or a **combination of both** on land to which it provides or makes available the service.

Section 155(3)(b) of the Act provides that a service rate or annual service charge may vary according to a factor prescribed by regulations and applied by a Council. Further, Section 155(8) provides that an annual service charge may be based on any factor that applies under Section 155(3). Regulation 9A



of the Regulations prescribes that one of the factors by which a service rate or an annual service charge may vary is the Property Unit system established by this Code.

This Code provides a mechanism that can be used for the purpose of calculating annual service charges under Section 155 of the Act in respect of CWMS. Councils may choose to use this Code as the basis for calculating annual service charges to be imposed against land to which a CWMS is provided or made available or, subject to the operation of the Act, may determine an alternative method of charging for the purpose of recouping costs associated with the provision of a CWMS.

The Property Unit system established under this Code seeks to equalise the level of charge imposed for the provision of a CWMS amongst ratepayers, based on user pays principles. Under this system, the cost to each single residential premises is the same. Other premise types producing higher levels of waste, are to be charged at a correspondingly higher level via multiples of property unit numbers (rounded up to the nearest half unit).

The calculation of the monetary amount attributed to each Property Unit is to be performed by estimating the total annual cost of establishing, operating, maintaining, improving, and replacing an individual CWMS (or the total aggregate of such costs for all the CWMS in the Council area), in accordance with section 155(5) of the Act, and dividing that total cost by the number of Property Units serviced by the CWMS (or CWMS) in the Council area.

## **2. DEFINITION OF A “PROPERTY UNIT”**

It is not practical or cost-effective to measure the **actual** level of effluent volume generated by individual properties connected to a CWMS. The Property Unit system outlined in this Code has been developed to allow calculation of indicative average levels of effluent volumes generated by various properties categorised according to the use of the land.

One Property Unit is based on the average level of effluent volume generated by a single residential dwelling in which three and one half occupants reside. Each occupant is assumed to generate an average of 140 litres of effluent per day. The residential dwelling is, therefore, assumed to generate an average of approximately 500 litres of effluent per day. All other categories of property are compared to the single residential dwelling for determination of the estimated volume of effluent generated by that property and the number of Property Units is adjusted accordingly.

The assumptions for the Property Unit calculations for residential dwellings and the variations for all other property categories listed in Clause 3 below are based on indicative average measures developed over time by various parties including a State Government Drainage Liaison Committee, Health Commission, Engineering



and Water Supply Department and Department of Highways and Local Government, for the planning and design of CWMS. The actual volume of effluent generated by individual properties may be higher or lower than the indicative average measures used for the purpose of this Code.

### **3. CALCULATION OF PROPERTY UNITS FOR CATEGORIES OF PROPERTIES**

The following method of determining Property Units shall apply to the various categories of properties outlined below.

#### **3.1 Residential dwellings**

As outlined in Clause 2 above, a single residential dwelling comprises the basis of a single Property Unit, therefore:

1 residential dwelling = 1 property unit.

A residential dwelling comprises a single household occupancy whether a flat, unit, semi-detached, row cottage or separate dwelling.

#### **3.2 Vacant allotments**

1 vacant allotment = 1 property unit.

A vacant allotment comprises any vacant parcel of land held under separate title, capable of sale without requiring approval for division.

**Note:** Where a single residence is constructed over the boundary of 2 or more allotments and/or the residence and adjoining allotments are developed in such a way that none of the allotments could be sold without removal of part or all of the residence or associated buildings, a Council may choose to treat all the adjoining allotments as constituting a single Property Unit. In this case, however, only one connection will be provided to the CWMS.

#### **3.3 Commercial premises (one occupancy per building)**

For example: shops, offices (including Government offices) or private agencies.

The number of Property Units is to be calculated as follows:

$$\frac{\text{FTE}}{6}$$



**Where:**

FTE = the total number of full time equivalent employees (not living on the site).

The denominator figure 6 reflects the limited (working) hours during which facilities are used by employees compared with the domestic situation.

Any fraction obtained by such division shall be rounded up to the nearest half or full Property Unit. All commercial premises (including vacant premises) shall be considered a minimum of one Property Unit.

**Example 1:** A general store employing ten persons, being full-time equivalents, would be assessed as two Property Units.

$$\frac{10}{6} = 1.67^*$$

\*(Rounded up to next full Property Unit = 2 Property Units)

**Example 2:** An office employing the equivalent of seven full-time persons would be assessed as one and a half Property Units.

$$\frac{7}{6} = 1.17^*$$

\*(Rounded up to next half of a Property Unit = 1.5 Property Units)

### 3.4 Multiple commercial premises with or without a residence

Each commercial occupancy shall be calculated separately on the overall number of employees in accordance with Clause 3.3 of this section.

A single Property Unit shall be charged for any residence forming a part of commercial premises, in addition to the separate commercial property unit calculation pursuant to Clause 3.3 of this section.

**Note:** Where an office or other business not producing any wastewater and a residence are combined and occupied by the same person or persons, a single Property Unit may be considered an appropriate charge.



### 3.5 Hospital, nursing or rest homes, or similar occupancies

The number of Property Units is to be calculated as follows:

$$\frac{\text{FTE} + \text{BEDS}}{6}$$

**Where:**

**FTE** = the total number of full-time equivalent employees (not living on the site)

**BEDS** = the number of accommodation beds.

Any fraction obtained by such calculation shall be rounded up to the nearest half or full Property Unit.

**Example:** A hospital employing 10 full time equivalent employees and holding 50 accommodation beds would be assessed as 10 Property Units.

$$\frac{10 + 50}{6} = 10$$

Any residential dwelling attached to the complex and/or any permanent occupancy by a proprietor, manager, or one or more employees will be assessed as an additional Property Unit.

### 3.6 Hotel, motel, residential clubs, or similar occupancies

The number of Property Units is to be calculated as follows:

$$\frac{\text{FTE} + (\text{BEDS} \times 0.7)}{6}$$

**Where:**

**FTE** = the total number of full-time equivalent employees (not living on the site)

**BEDS** = the number of accommodation beds.

**Note:** The use of 0.7 in the formula is an **assumed** occupancy rate.

Any fraction obtained by such calculation shall be rounded up to the nearest half or full Property Unit.

**Example:** A hotel that employs 5 full time equivalent employees and holds



10 accommodation beds would be assessed as two Property Units.

$$\frac{5 + (10 \times 0.7)}{6} = 2$$

Any residential dwelling attached to the complex and/or any permanent occupancy by a proprietor, manager or one or more employees will be assessed as an additional Property Unit.

### **Premises with a public bar or restaurant**

Where a public bar and/or restaurant exists at a hotel, motel or club, additional Property Units are to be calculated for the bar / restaurant trade as follows:

- (a) where the average daily attendance is up to 50 persons, 1 additional Property Unit shall be charged;
- (b) a further additional half of a Property Unit shall be charged for each additional 25 persons or part thereof.

**Example:** A hotel that employs 15 full time equivalent employees, holds 20 accommodation beds and contains a public bar that has a daily attendance of 65 persons would be assessed as 6.5 Property Units.

$$\frac{15 + (20 \times 0.7)}{6} = 4.83 + 1.5 \text{ (for patronage)} = 6.33^*$$

\* (Rounded to the nearest full Property Unit = 6.5 Property Units)

### **3.7 Halls, change rooms, community centres, sporting facilities or similar occupancies** (not including commercial premises or accommodation, bar or restaurant facilities)

Where the estimated average daily attendance over a week is no more than 50 persons per day, the premises must be assessed as one Property Unit. An additional half of a Property Unit must be charged for each additional 25 persons or part thereof.

### **3.8 Schools**

The number of Property Units is to be calculated as follows:

$$\frac{(\text{Number of students} + \text{Staff}) \times 0.125}{6}$$





Any fraction obtained by such calculation shall be rounded up to the nearest half or full property unit.

**Example:** A school which has 453 students plus 15 teachers would be assessed as 10 Property Units.

$$\frac{(453 + 15) \times 0.125}{6} = 9.75^*$$

\* (Rounded to the nearest full Property Unit = 10 Property Units)

### 3.9 Churches

Each property = 1 Property Unit.

### 3.10 Industrial premises

The number of Property Units is determined by the connection of **staff ablutions only** and is calculated based on the number of employees in accordance with Clause 3.3 of this Code.

**Note:** Industrial Premises may include milk-processing plants, engineering premises, poultry processors, bakeries etc. that produce wastes with an organic loading greater than septic tank effluent and/or having high hydraulic flows.

### Trade Wastes

Trade Wastes are generally not permitted into a CWMS.

Where consideration is being given to accepting Trade Wastes into a CWMS, the Council must seek the advice of its consultant, the Local Government Association of South Australia and the Department of Health on the following matters:

- (1) whether the Trade Waste should be admitted to the CWMS;
- (2) what pre-treatment, if any, should be given the Trade Waste before it is admitted to the CWMS; and
- (3) the appropriate number of Property Units to be charged, based on estimated water usage, so that the discharge of Trade Waste, when permitted, is charged consistent with the general formula in Clause 2 (an estimated 500 litres of effluent per day = 1 Property Unit) and the General Provisions in Clause 4 of this Code.

**Laundromats, hairdressers and other water-using businesses not accounted for elsewhere in this Code**

To calculate the number of Property Units for these premises, it is necessary to determine the number of litres of water used per day. The number of Property Units to be charged can then be calculated by dividing the litres of water used per day by 500, and rounding up to the nearest half or full Property Unit.

In the case of Laundromats, when direct water meter readings are not available this calculation must be used instead:

$$\frac{\text{MACHINES} \times \text{CYCLES} \times \text{LITRES}}{500}$$

**Where:**

**MACHINES** = the number of washing machines in the premises

**CYCLES** = the average number of washing cycles per machine per day

**LITRES** = the number of litres used per cycle.

**Example:** A laundromat that contains 5 washing machines which each use 16 litres of water for each cycle and a total of 25 cycles are completed each day would be assessed as 4 Property Units.

$$\frac{5 \times 25 \times 16}{500} = 4$$

### 3.11 Caravan parks

Each permanently occupied site within a caravan park, such as a caretaker's/owner's dwelling, mobile home / cabin must be assessed as one Property Unit.

For other sites, not occupied on a permanent basis, the number of Property Units shall be calculated as follows:

$$\frac{\text{DSO p.a.} \times 0.7}{365}$$



### Where:

**DSO p.a.** = Daily site occupancies per annum - i.e. the total number of overnight uses of camping sites, caravan sites, cabins etc in a 12-month period.

**Note:** A 30% discount is applied to the occupancy level recognising the reduced water usage per site in caravan parks compared to other accommodation (eg hotels and motels).

### Example:

	Daily Site Occupancies Per Annum	Property Units
Caretaker's Dwelling		1
Permanently occupied sites		
5		
Caravan Sites	(a) 1,800	
Holiday Cabins	(b) 500	
Tents (Camping) sites	(c) 200	
Total Annual Occupancies	2,500	
<hr/>		
<u>(2500 occupancies x 0.7)</u>		
365 days in year	=	4.79
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Total Property Units		10.79
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Therefore, Total Property Units to be charged	=	11

### Where:

- (a) = the number of caravan sites x the number of days occupied per year
- (b) = the number of Holiday Cabins within the Caravan Park x the number of days occupied per year
- (c) = the number of tents (camping sites) x the number of days occupied per year.



**4. GENERAL PROVISIONS**

When a calculation requires estimation of the number of employees at a location, business owners and others who spend a substantial portion of time on the subject premises are to be considered as employees for the purposes of these calculations.

Where a calculation produces a fraction of a Property Unit, it shall be rounded up to the next full or half of a Property Unit, provided that the minimum service charge to be applied to any property is one Property Unit.