

E23.0 On-Site Wastewater Management Code

E23.1 Purpose

E23.1.1 The purpose of this provision is to ensure that development or use requiring onsite wastewater management will have access to sufficient land area necessary for the satisfactory and sustainable onsite treatment of that wastewater.

E23.2 Application

E23.2.1 This code applies to use and development relying on onsite management of:

- (a) domestic wastewater from residential use; and
- (b) wastewater similar to domestic wastewater from non-residential use, other than wastewater from industrial or manufacturing processes.

E23.3 Definition of Terms

E23.3.1 In this code, unless the contrary intention appears;

AS/NZS1547	means the Australian/New Zealand Standard On-site Domestic Wastewater Management 2012.
bedroom	means a habitable room used, or potentially used, primarily for sleeping.
downslope surface water	means surface water that is in the likely direction of effluent flow across or through the soil once it has been discharged from a Land Application Area.
high environmental value water	means high conservation value/ecological value aquatic eco-systems as defined in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
high rainfall area	means an area where the average annual rainfall exceeds 1200mm. High rainfall areas in the Planning Scheme Area are:
high resource value water	means water used for any of the following: <ul style="list-style-type: none">(a) potable human water supplies, including from bores or wells;(b) primary contact recreational purposes;

	(c) aquaculture.
horizontal separation distance	means the distance measured along the surface of the ground from the land application area to a feature such as a property boundary, building or watercourse. The distance from downslope surface water is measured to either the high water mark if tidal waters, wetland or a dam, or to the top of the riverbank or cliff if a watercourse.
land application area	means an area of land used to apply effluent from a wastewater treatment unit or reserved for future application.
limiting layer	means a layer such as hardpan, bedrock, or category 6 soil that restricts the movement of effluent vertically through the soil profile
OWMS	means an onsite wastewater management system
primary treated effluent	means effluent that has been treated via the separation of suspended material from wastewater by settlement and/or floatation in septic tanks or primary settling chambers.
raised bed	means a terraced bed or mound for wastewater irrigation designed in accordance with AS/NZS 1547
secondary treated effluent	means effluent that has been treated via aerobic biological processing and settling or filtering of wastewater received from a primary treatment unit to a quality equal to, or less than, 20mg/L BOD5 and 30mg/L suspended solids.
soil category	means the predominant soil category for the top 1.5m of soil profile as listed in AS/NZS 1547
site and soil evaluation (SSE)	means a soil evaluation of the site and proposed development prepared by a suitably qualified person in accordance with AS/NZS1547
vertical separation distance	means the distance measured vertically through the ground from the base of the land application area to a feature such as bedrock, a limiting layer or groundwater. The distance to groundwater is measured to the highest known seasonal water table.

E23.4 Use and Development Exempt from this Code

E23.4.1 Residential development on sites greater than 5,000 m² is exempt from this code except if any of the following applies:

- (a) development is for multiple dwellings;
- (b) any part of the site is below 3 m AHD;
- (c) the site cannot accommodate an inscribed circle with a diameter of 50 m.

E23.4.2 Subdivision of lots no less than 5000 m² is exempt from this code unless involving land containing an existing land application area.

E23.5 Application Requirements

E23.5.1 In addition to any other application requirements, the planning authority may require the applicant to provide any of the following information if considered necessary to determine compliance with all applicable standards:

- (a) a site and soil evaluation;
- (b) certification from a structural engineer that the risk of effluent reducing the bearing capacity of a building's foundations is acceptably low;
- (c) certification from a structural engineer for the design of a barrier that ensures that the risk of effluent reducing the bearing capacity of a building's foundation is acceptably low.

E23.6 Use Standards

E23.6.1 No use standards in this code.

E23.7 Development Standards for Residential Development

E23.7.1 Development Standards for Residential Development

Objective:	
To ensure sustainable onsite wastewater management for residential development.	
Acceptable Solutions	Performance Criteria
A1 A new dwelling must be provided with a land application area that complies with Table E23.1.	P1 The land application area is of sufficient size to comply with the requirements of AS/NZ1547.
A2 An addition or alteration to an existing dwelling, or change of use to a dwelling, must not encroach onto an existing land application area and comply with at least one of the following: (a) not increase the number of bedrooms or otherwise increase the potential volume of wastewater generated onsite;	P2 The land application area is of sufficient size to comply with the requirements of AS/NZ1547.

<p>(b) not increase the number of bedrooms or otherwise increase the potential volume of wastewater generated onsite to greater than that allowed for in the design of the existing OWMS;</p> <p>(c) provide a land application area that complies with Table E23.1.</p>	
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E23.8 Development Standards for Non-Residential Development

E23.8.1 Development Standards for Non-Residential Development

Objective:															
To ensure sustainable onsite wastewater management for non-residential development.															
Acceptable Solutions	Performance Criteria														
<p>A1</p> <p>A land application area for non-residential development must comply with the following:</p> <p>(a) if including bedrooms, (such as visitor accommodation), the size of the land application areas must comply with Table E.23.1;</p> <p>(b) if other development, design flow rates must be no less than the rates provided in the following table:</p> <table border="0" data-bbox="199 1384 788 1890"> <tr> <td>Wastewater Fixture:</td> <td>Flow Design Allowance per person per day:</td> </tr> <tr> <td>Closet Pan:</td> <td>50L</td> </tr> <tr> <td>Urinals</td> <td>25L</td> </tr> <tr> <td>Washbasin:</td> <td>10L</td> </tr> <tr> <td>Shower:</td> <td>30L</td> </tr> <tr> <td>Bath:</td> <td>30L</td> </tr> <tr> <td>Laundry:</td> <td>30L</td> </tr> </table>	Wastewater Fixture:	Flow Design Allowance per person per day:	Closet Pan:	50L	Urinals	25L	Washbasin:	10L	Shower:	30L	Bath:	30L	Laundry:	30L	<p>P1</p> <p>The land application area is of sufficient size to comply with the requirements of AS/NZ1547.</p>
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Closet Pan:	50L														
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Bath:	30L														
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E23.9 Development Standards for Subdivision

E23.9.1 Development Standards for New Lots

Objective:	
To ensure sustainable onsite wastewater management for new lots.	
Acceptable Solutions	Performance Criteria
A1 A new lot must have an area no less than: 5,000 m ² .	P1 The area of a new lot must be adequate to accommodate a land application area of sufficient size to comply with the requirements of AS/NZ1547 for a dwelling containing a minimum of 3 bedrooms.
A2 Subdivision is not prohibited by the relevant zone standards.	P2 No performance criteria.

E23.9.2 Development Standards for New Boundaries

Objective:	
To ensure subdivisions and boundary adjustments creating new boundaries do not increase the potential for existing onsite wastewater management systems and land application areas to cause environmental harm.	
Acceptable Solutions	Performance Criteria
A1 A new boundary must have a separation distance from an existing land application area that complies with E.23.10.1 A3.	P1 A new boundary must have a separation distance from an existing land application area that satisfies E.23.10.1 P3.

E23.10 Development Standards for Land Application Areas

E23.10.1 Land Application Areas

Objective:	
To provide for sustainable onsite wastewater management through the provision of appropriate land application areas.	
Acceptable Solutions	Performance Criteria
A1	P1

<p>Horizontal separation distance from a building to a land application area must comply with one of the following:</p> <ul style="list-style-type: none"> (a) be no less than 6m; (b) be no less than; <ul style="list-style-type: none"> (i) 2m from an upslope or level building; (ii) if primary treated effluent be no less than 4m plus 1m for every degree of average gradient from a downslope building; (iii) if secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a down slope building. 	<p>Horizontal separation distance from a building to a land application area must satisfy all of the following:</p> <ul style="list-style-type: none"> (a) effluent must be no less than secondary treated effluent standard and applied through a subsurface land application system; (b) be no less than 2m.
<p>A2</p> <p>Horizontal separation distance from downslope surface water to a land application area must comply with any of the following:</p> <ul style="list-style-type: none"> (a) be no less than 100m; (b) if the site is within a high rainfall area or the site soil category is 4, 5 or 6, be no less than the following; <ul style="list-style-type: none"> (i) if primary treated effluent standard or surface application, 50m plus 7m for every degree of average gradient from downslope surface water; (ii) if secondary treated effluent standard and subsurface application, 50m plus 2m for every degree of average gradient from down slope surface water. (c) if the site is not within a high rainfall area or the site soil category is not 4, 5 or 6, be no less than the following; 	<p>P2</p> <p>Horizontal separation distance from downslope surface water for a land application area must satisfy all of the following:</p> <ul style="list-style-type: none"> (a) effluent must be no less than secondary treated effluent standard and applied through a subsurface land application system; (b) be no less than 15m; (c) the surface water is not of high resource or environmental value; (d) the average gradient is no more than 16 degrees; (e) the site is not in a flood prone area with an ARI of no less than 20 years; (f) either of the following applies: <ul style="list-style-type: none"> (i) the site soil category is 1, 2 or 3; (ii) a raised bed is used.

<ul style="list-style-type: none"> (i) if primary treated effluent 15m plus 7m for every degree of average gradient from downslope surface water; (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient from down slope surface water. 	
<p>A3</p> <p>Horizontal separation distance from a property boundary to a land application area must comply with either of the following:</p> <ul style="list-style-type: none"> (a) be no less than 40m from a property boundary; (b) be no less than: <ul style="list-style-type: none"> (i) 1.5m from an upslope or level property boundary; and (ii) if primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) if secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary. 	<p>P3</p> <p>Horizontal separation distance from a property boundary to a land application area must satisfy all of the following:</p> <ul style="list-style-type: none"> (a) effluent must be no less than secondary treated effluent standard and applied through a subsurface land application system; (b) be no less than 1.5m (c) the average gradient is no more than 16 degrees; (d) either of the following applies: <ul style="list-style-type: none"> (i) the vertical separation between the land application area and groundwater or any limiting layer is no less than 1.5m; (ii) a raised bed is used to achieve a minimum vertical separation of 1.5m between the land application area and groundwater or any limiting layer.
<p>A4</p> <p>Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must be no less than 50m.</p>	<p>P4</p> <p>Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must satisfy all of the following:</p> <ul style="list-style-type: none"> (a) effluent must be no less than secondary treated effluent standard and applied through a subsurface land application system; (b) be no less than 15m;

	(c) the water is not high resource value water.
A5 Vertical separation distance between groundwater and a land application area must be no less than 1.5m.	P5 Vertical separation distance between groundwater and a land application area must satisfy all of the following: (a) effluent must be no less than secondary treated effluent standard and applied through a subsurface land application system; (b) vertical separation distance must be no less than 0.5m, (whether 'in ground' or by use of a raised bed).
A6 Vertical separation distance between a limiting layer and a land application area must be no less than 1.5m.	P6 Vertical separation distance between a limiting layer and a land application area must satisfy all of the following: (a) effluent must be no less than secondary treated effluent standard and applied through a subsurface land application system; (b) vertical separation distance must be no less than 0.5m, (whether 'in ground' or by use of a raised bed).
A7 The arrangement of a land application area must comply with both of the following: (a) not include areas beneath buildings, driveways or other hard stand areas; (b) have a minimum horizontal dimension of 3m.	P7 No performance criteria.

Table E23.1 Minimum Land Application Area

Soil category for top 1.5m of soil profile as listed in AS/NZs 1547, (refer notes).	Area required per bedroom for primary treatment effluent.	Area required per bedroom for secondary treatment effluent.

1 (Sand)	50m ²	50m ²
2 (Sandy loam)	60m ²	55m ²
3 (Loam)	90m ²	70m ²
4 (Clay loam)	120m ²	80m ²
5 (Light clay)	180m ²	100m ²
6 (Clay)	180m ²	130m ²

Notes to Table:

- (a) Where the soil in the upper 1.5m of the soil profile comprises two or more soil categories, the required area must be calculated on the basis of the requirements for the predominant soil category.
- (b) If dispersive soils or a limiting layer are encountered within the upper 1m of the soil profile, then the area required must be calculated on the basis of the requirements for Category 6 soil.