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OFFICE USE ONLY

Application No
 15 / / /
 Date of Receipt

Site and Soil Assessment Report For an On-Site Sewage Management System (Domestic Systems only)

The designer of the onsite sewage management system is to complete this form when wastewater treatment will involve the on-site disposal of effluent. If effluent pump-out by tanker or pump to reticulated sewer is proposed this report is not required as part of the application.

The Site Evaluator

Company Name			
Name of Evaluator			
Address		Postcode	
Phone		Fax	
Signature of Evaluator		Date of Assessment	

The Property

Lot number		DP	
House number	Street name		
Town/Suburb		Postcode	
Water Supply Available	Reticulated Town Water Supply <input type="checkbox"/>	Tank Supply <input type="checkbox"/>	Dam/Creek/Bore <input type="checkbox"/>
Number of Bedrooms (Note: Studies and the like are to be counted as bedrooms)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 (5 persons) <input type="checkbox"/>
	4 (7 persons) <input type="checkbox"/>	5 (9 persons) <input type="checkbox"/>	6 (10 persons) <input type="checkbox"/>
Water Conservation Devices Installed	Front Load Washing Machine <input type="checkbox"/>	Restricted Flow Shower Heads <input type="checkbox"/>	Dual Flush Toilet Cisterns <input type="checkbox"/>
	Water Saving Tapware <input type="checkbox"/>	Other (Specify) <input type="checkbox"/>	
Expected Wastewater Quantity (Litres/day)			

The Treatment System and Land Application Area

Treatment System considered best suited to site and land application system:

Aerated Wastewater Treatment System	<input type="checkbox"/>	Septic Tank	<input type="checkbox"/>	Wet Composting	<input type="checkbox"/>	Dry Composting	<input type="checkbox"/>
Sand/Media Filter	<input type="checkbox"/>	Constructed Wetland	<input type="checkbox"/>	Other	<input type="checkbox"/>		

Land Application System considered best suited to site:

Sub-surface	<input type="checkbox"/>	Surface Spray	<input type="checkbox"/>	Surface Drip	<input type="checkbox"/>	Evapo-transpiration	<input type="checkbox"/>
Absorption Trench	<input type="checkbox"/>	Wisconsin Mound	<input type="checkbox"/>	Other	<input type="checkbox"/>		

Surface Irrigation Details (Only permitted with the approval of Council)

Rotary Sprays	<input type="checkbox"/>	Drippers/Emitters	<input type="checkbox"/>	PopUps (small)	<input type="checkbox"/>	PopUps (large)	<input type="checkbox"/>	Wobbler	<input type="checkbox"/>
Manufacturer				Model/Cat Number					
Rated Throw Distance (Radius, metres)				Sprayer Flow Rate (L/hr)					
Number of Separate Irrigation Lines				Number of Sprayers Per Separate Irrigation Line					
Upslope Diversion Drain Required	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Downslope Earth Bund Required	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Subsurface Irrigation Details (Installation is to be as per manufacturers' guidelines / Council requirements)

Manufacturer/Model			Emitter Spacings (m)		
Trench Spacings (m)			Emitter Flow Rate (L/hr)		
Number of Zones			Total Lineal Length of Pipework (all zones) (m)		

Sizing the Land Application Area

Hydraulic Balance (m ²) (All systems)		Nitrogen Balance (m ²) (Irrigation Areas)		Phosphorus Balance (m ²) (Irrigation Areas)	
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Note: The sizes nominated above must be justified with calculations in accordance with AS/NZS 1547 and the Environment & Health Protection Guidelines. A calculations sheet is to be included with the application stating all relevant figures and values. **Zero wet weather storage is required.**

The Irrigation Pump

(applicable only if an irrigation system is proposed)

Pump Manufacturer			Pump Model		
Pump Delivery Rating (max head, metres)			Pump Delivery Volume (m ³ /hr)		
Total Head Loss from Irrigation Pump to Disposal Area (m)			Motor Power Rating (kW)		

Note: An appropriately sized irrigation pump must be installed to ensure the correct operation of the spray heads or subsurface system.

The Buffer Guide – Distances to Comply With		
System	Limiting Factor	Minimum Buffer Distances
All land application systems	Permanent surface waters such as: lakes, rivers, creeks and streams	> 100 metres
	Domestic groundwater wells and bores	> 250 metres
	Other waters such as dams, intermittent waterways and drainage channels.	> 40 metres
Surface Spray Irrigation (Standard Sprayers)	Driveways and property boundaries	> 6 metres if area up gradient > 3 metres if area down gradient
	Dwellings and buildings	> 15 metres
	Paths and walkways	> 3 metres
	Swimming Pools	> 6 metres
Surface Spray Irrigation (Large Capacity Pop-Ups and large wobblers)	Dwellings and buildings	> 20 metres
	Property boundaries	> 10 metres
	Throw distance (radius)	> No greater than 5metres
	Plume height	> No greater than 0.5metres
Surface Drip and Trickle Irrigation	Dwellings and buildings, swimming pools, property boundaries and driveways	> 6 metres if area up gradient > 3 metres if area down gradient
Subsurface Irrigation	Dwellings and buildings, swimming pools, property boundaries and driveways	> 6 metres if area up gradient > 3 metres if area down gradient
Absorption System	Property boundary	> 12 metres if area up gradient > 6 metres if area down gradient
	Dwellings and buildings, swimming pools and driveways	> 6 metres if area up gradient > 3 metres if area down gradient

The Application Guide Notes

Notes for Completing a Site and Soil Assessment:

A fully detailed and completed site and soil assessment must address the following:

- Soil characteristics that confirm the appropriateness of the system and land application method. It is important that an accurate classification be performed and that the depth of each profile is indicated for both the primary and reserve application areas.
- Any strategies that are proposed or employed in the design of the system that will significantly reduce the level of nutrients or micro-organisms discharged (e.g. importation of soils, soil improvements, construction of gardens, installation of nutrient reducing devices).
- Any water reducing devices that will be installed or alternatively the installation of spa baths and the like should be included. These can significantly impact on the size of any land application areas.
- The removal of any vegetation of a height greater than 3 metres may be subject to a separate Tree Preservation Order (TPO) application to Council.

The Application Requirements

All applicants must submit THREE (3) COPIES OF the following with applications for Installation Approval:

1. **Site Constraints Plan:**

A dimensioned site constraints plan drawn to a suitable scale indicating:

- Location of the treatment tank(s);
- Location of primary and reserve disposal areas (including prescribed sizes and any vegetation / landscaping requirements);
- Location of boundaries, all buildings, swimming pools, driveways / roads and paths;
- Location of any environmentally sensitive areas of any land located within 100m of the wastewater management facility including groundwater bores, dams, waterways, intermittent drainage courses etc;
- Buffers from environmentally sensitive areas to the land application area;
- Location of the soil test holes;
- Location of stormwater diversion drains and earth bunds (if applicable).

2. **Drainage Diagram:**

A drainage diagram drawn to a suitable scale indicating:

- Proposed drainage diagram from each wastewater fixture within the building to the treatment tank(s) in accordance with the National Plumbing & Drainage Code AS/NZS 3500 (including pipe size, dimensions, location, inspection openings, vents, overflow relief gully, etc).

3. **Floor Plan:**

A copy of the floor plan of any building to be connected to the waste treatment device.

4. **Manufacturer's Specifications:**

Manufacturer's specifications for the tank(s) (indicating NSW Department of Health Accreditation for domestic systems).

5. **Site and Soil Assessment Report:**

A Site and Soil Assessment Report which demonstrates compliance with AS1547 and NSW Environment & Health Protection Guidelines.

Note: For Environment & Health Protection Guidelines visit www.dlg.nsw.gov.au/files/information/onsite.pdf

- Any other information requested by Council deemed to be relevant to the assessment of this application.

6. **Operation and Maintenance:**

- Details of the operation and maintenance requirements for the wastewater treatment facility and the proposed operation, maintenance and servicing arrangements intended to meet these requirements;
- The action to be taken in the event of a breakdown in, or other interference with the system's operation.

7. **Aerated Wastewater Treatment Systems:**

Where an aerated wastewater treatment system is to be installed the applicant is required to supply:

- Detailed design plans and information for the irrigation pipework within the land application area.

8. **Additional Information that may be Required to Accompany the Application:**

- Geo-technical reports for all lots under 2,000m².
- Cross-sectional drawing through any proposed trenches or beds (including dimensions).
- Manufacturer's specifications for any sub-surface irrigation system.
- Manufacturer's specifications for any distribution boxes or the like where provided to ensure the even distribution of treated effluent within land application areas.
- Location and type of any landscaping or vegetation that is proposed.