Port Stephens COUNCIL
... a community partnership

116 Adelaide Street
(PO Box 42) Raymond Terrace NSW 2324
DX 21406 Raymond Terrace
T: (02) 4980 0255 F: (02) 4987 3612
E: council@portstephens.nsw.gov.au
W: www.portstephens.nsw.gov.au

OFFICE USE ONLY
Application No
Date of Receipt

Site and Soil Assessment Report For an On-Site Sewage Management System

The installation firm, wastewater consultant or Council approved site evaluator is to complete this form when wastewater treatment will involve the on-site disposal of effluent. If tanker removal or pump to reticulated sewer (CES) 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	☐ Town			☐ Tank				☐ Dam/Creek/Bore			
Number of Bedrooms	☐ 1	☐ 2		☐ 3	☐ 4			☐ 5	☐ 6		
Water Conservation Devices Installed	☐ Front Load Washing Machine			☐ Restricted Flow Shower Heads				☐ Dual Flush Toilet Cisterns			

Assessment of the Site

Aspect/Exposure (sun/wind)	☐ High	☐ Moderate	☐ Poor
Slope of Land Application Area	☐ Negligible	☐ Less than 6%	☐ Greater than 6%
Does vegetation greater than 3m in height need to be removed for installation of land application area?		☐ Yes (submit a separate application)	☐ No
Is a groundwater bore present on-site?		☐ Yes (locate an on-site plan)	☐ No
Approximate distance to nearest available sewerage connection point		☐ Less then 75m	☐ Greater than 75m
Groundwater Bore	☐ Less than 250m	☐ Greater than 250m	☐ N/A
Permanent Waters	☐ Less than 100m	☐ Greater than 100m	☐ N/A
Dams, Drains, Intermittent Watercourses	☐ Less than 40m	☐ Greater than 40m	☐ N/A
Additional health or environmental constraints specific to the property		☐ Yes (provide detail separately)	☐ No

Assessment of the Soil

Depth to bedrock or hardpan (m)		Depth to groundwater (m)	

1. Two test holes are to be dug in a central location in the primary and reserve land application areas.
2. These holes should be MADE SAFE and marked after site assessment to allow for future Council inspection.
3. Minimum depth of test holes for surface irrigation is 500mm.
4. Minimum depth of test holes for subsurface irrigation, trenches or transpiration areas is 1000mm.

Layer	Depth of Layer (mm)	Soil Type (Tick appropriate soil type for each layer identified)								Colour of soil
		Humus	Sand	Sandy/ Loam	Loam	Clay/Loam	Light Clay	Heavy Clay	Other	
Topsoil										
1										
2										
3										

The Treatment System and Land Application Area

Treatment System considered best suited to site and land application system

Aerated Water Treatment System	Septic Tank	Wet Composting	Dry Composting
Sand/Media Filter	Constructed Wetland	Other	

Land Application System considered best suited to site

Sub-surface	Surface Spray	Surface Drip	Evapo-transpiration
Absorption Trench	Wisconsin Mound	Other	

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

Rotary Sprays Drippers/Emitters PopUps (small) PopUps (large) Wobbler

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	No	Downslope Earth Bund Required		Yes	No

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

Manufacturer/Model		Emitter Spacings (m)	
Lateral/Trench Spacings (m)		Emitter Flow Rate (L/hr)	

The Irrigation Pump (applicable only if an irrigation system is proposed)			
Pump Manufacturer		Pump Model	
Pump Delivery Rating (max head, metres)		Pump Delivery Volume (m3/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 O 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)	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

Site Plan O a fully detailed and accurate site plan must be submitted showing the location of the following:

The sewage management facility to be installed or con ructed.

Any effluent land application areas (disposal areas), including the location of any reserve application areas. The number and location of irrigation lines an sprayers should be indicated, along with the type of sprayer proposed.

The location of the two (2) soil test holes.

Dwellings, buildings or facilities proposed or existing on the property, including groundwater bores and dams.

Environmentally sensitive areas such as waterways, dams and drainage channels (include areas affected by flooding or high water table).

The location of storm water diversion drains and bund walls.

The location and distances of any appropriate buffers surrounding land application areas.

Site and Soil Assessment O a fully detailed and completed site and soil assessment must be submitted indicating 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 restrictions on sites potentially affected from flooding or groundwater inundation. If the system is proposed for a sensitive site then the application must clearly identify what level of treatment is to be achieved in order to overcome the constraint. Systems that discharge high levels of nutrients or micro-organisms may restrict the development of these sites.

Any strategies that are proposed or employed in the design of the system that reduce significantly the level of nutrients or micro-organisms discharged (e.g. importation of soils, 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 is subject to a separate Tree Preservation Order (TPO) application to Council.

System Selection

Specifications O full specifications of the propo sed sewage management system and land application area must be submitted. Sales brochures will not be accepted. The proposed system must satisfy the following criteria:

The system must have a current certificate with the NSW Health Department;

Must provide sufficient detail for assessment;

Must provide full details of the land application disposal method.

Water Usage

Water usage is determined from the number of bedrooms in the dwelling/building and the source of the water supply (reticulated or tank). Currently a volume of 180 litres per person per day is nominated for a reticulated supply and 140 litres per person per day for a tank water supply. These figures may be modified dependent on any water reducing devices or water increasing devices.