

120 Flatrock Road, Mundamia NSW

On-Site Wastewater Report


November 2023

REF: 3001-WW-A-02

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Approval and Authorisation

Title	120 Flatrock Road, Mundamia NSW On-Site Wastewater Report
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Signed:	
Dated:	20/11/2023

Document Status

Date	Internal Reference	Document Status	Prepared by	Reviewed by
5/06/2023	3001-WW-A-01	For Release	A. McAllister	C. Hudson
20/11/2023	3001-WW-A-02	Update to Pump-out	K. Ryan	C. Hudson

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1 INTRODUCTION

1.1 Foreword

An On-Site Wastewater Report is a technical document which specifies how the sewage produced on-site will be managed, treated, and then disposed. An On-Site Wastewater Report carefully considers the environment, health, cost, and long-term management options for the on-site management of sewage.

1.2 Background

Broadcrest Pty. Ltd. was engaged by Terrior Pty Ltd to produce an On-Site Wastewater Management Report at 120 Flatrock Road, Mundamia NSW (the site). The report will accompany plans to construct a new Waste Management Education Facility. The assessment of the results, system design and recommendations are detailed in this report.

1.3 Objectives

The performance objectives of the On-Site Wastewater Assessment are to:

- Protect human health
- Protect ground and surface water
- Maintain and enhance the quality of the land and vegetation
- Maintain and enhance community amenity
- Ensure maximum re-use of resources
- Promote an ecologically sustainable development.

1.4 Scope of Works

The scope of works included the following:

- A site inspection
- Wastewater management assessment
- Drafting of the proposed system
- Reporting in accordance with the associated legislations and guidelines.

1.5 Compliance

This report has been produced in accordance with the following guiding documents:

- DLG 1998, On-site Sewerage Management for Single Households
- SCA 2012, Designing and Installing On-Site Wastewater Systems
- Australian Standard AS 1546.1-3:2008 On-site domestic wastewater treatment units
- Australian Standard AS 1547:2012 On-site domestic wastewater management.

2 SITE ASSESSMENT & INVESTIGATION

2.1 Site Information

Address / Locality	120 Flatrock Road, Mundamia NSW
Lot Area:	13 Ha
Zoning:	SP2: Infrastructure
Council / LGA:	Shoalhaven Council
Intended Water Supply:	Town
Inspection Officer:	K. Ryan - 14/09/2022

2.2 General

The site is currently being used as a waste management facility. The proposed development is a Resource Recovery Learning Centre to be constructed near the entrance to the facility.

Most of the surrounding landform was raised mounds of landfill unsuitable for effluent dispersal. Therefore collection-well storage and off-site removal of effluent via cartage tank for off-site treatment is proposed.

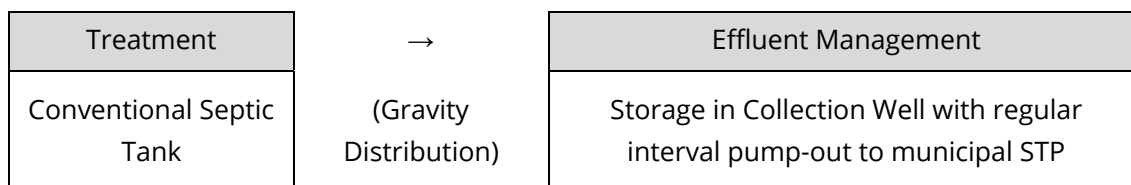


Figure 2-1: West facing photograph over proposed EMA Development Area

3 NOMINATED WASTEWATER MANAGEMENT

3.1 Proposed OSSM Summary

Site and soil constraints were evaluated in selection of appropriate treatment and effluent management method. A summary of the recommended OSSM system and application sizing is presented below:



3.2 Design Wastewater Loading

Table 3.2.1: Site Wastewater Loading

I.D	Equivalent Population [Persons]	Wastewater Generation Rate per Capita [L/Person/Day]	Design Wastewater Loading [L/Day]
Staff	4	29 ^[1]	120
Visitors	65	18 ^[2]	1,170
Total			1,290

[1]: NSW Health Septic Tank and Collection Well Guidelines. Part 4 (2001). Factories and Offices (WC, urinal, basin, kitchen)

[2]: NSW Health Septic Tank and Collection Well Guidelines. Part 4 (2001). Schools (WC, urinal, basin)

3.3 Wastewater Treatment

It is proposed to treat all wastewater generated by the development to a primary standard via a new NSW Health Accredited Septic Tank. The system must be capable of sustainably treating the calculated daily wastewater load with minimum volume per Table 3.1 as well as providing for sludge storage capacity consistent with AS1547:2012 and NSW Health (2001) guidelines. Sizing of the system was determined from on-site dimension measurements and is detailed in Table 3.2.

Table 3.1 – Septic Tank Capacity check (per AS1547:2012)

Settlement/ Treatment Volume		Sludge Accumulation Volume ^[2]			Min. Total Tank Volume [L]
Rate [L/PP]	Total [L]	Rate [L _{SLG} /L _{WW} /Yr]	De-Sludge Interval [Yrs]	Total [L]	
-	1,290	0.55	5	3,550	4,840

In this instance **a Septic Tank of 5.0kL is proposed**. Justification of the proposed treatment method is as follows:

- Standard NSW Health defined option suitable for an 'all-waste' wastewater stream
- Passive mode of effluent treatment to primary standard
- Sufficient treatment standard for liquid pump-out at regular intervals.

Monitored performance criteria of the existing treatment system is to be per Table 3.2.

Table 3.2 - Primary Treatment Criteria (per DLG 1998)

Biochemical Oxygen Demand (BOD ⁵) [mg/L]	Suspended Solids (TSS) [mg/L]	Total Nitrogen (TN) [mg/L]	Total Phosphorus (TP) [mg/L]	Faecal coliforms [cfu/100 mL]
< 150	50	50-60	10 - 15	10 ⁵ - 10 ⁷

3.4 Effluent Management

Given the development proposed and site conditions encountered, it is proposed to dispose of effluent from the treatment system via a collection well storage and pump-out arrangement. Sizing of the storage method was undertaken per the NSW Health (2001) storage methodology.

Table 3.5 – Design Storage for various pump-out frequencies

Weekly Design Loading [L/week]	Pump-out: Minimum collection well sizing [L]	
	Weekly (10 day capacity) ^[1]	Fortnightly (17-day capacity) ^[1]
9,030	12,900	21,930

Table 3.5 sizing has provisioned for an additional 3-day capacity to allow for variance in pump-out schedules due to weekends, holidays, or scheduled availability of cartage providers. Standard available tank sizing for the estimate rates is a single 12,900 – 22,000 L collection-well for a weekly - fortnightly pump-out respectively.

The landowner is to engage a cartage contractor and enter into an agreement for either:

- a) Weekly (7-day interval) pump-out where a 15,000L collection well capacity is installed.
- b) Monthly (14-day interval) pump-out where a 22,000L storage capacity is installed.

It is recommended that the collection well be fitted with a high-level sensor with an activation point at 80% of the selected tank capacity. The alarm system is to trigger an audio-visual alarm within common area of the dwelling for action.

Appendix A details a fortnightly installation, where a septic tank and single collection well tank would be required (or equivalent combination).

4 ADDITIONAL INFORMATION

4.1 Pipework Detail

All associated plumbing / drainage work is to be in accordance with AS 3500.2:2015 *Sanitary Plumbing Drainage*. Positioning of the receiving treatment system is to ensure drainage from internal plumbing fixtures achieves the minimum grade and cover of the excerpts below.

Table 6.1 – Excerpts of AS3500.2:2015

Nominal Pipe Diameter (DN)	Minimum Grade	
(mm)	(%)	(Ratio)
65	2.50	1:40
80	1.65	1:60
100	1.65*	1:60*
125	1.25	1:80
150	1.00	1:100

*Drains from treatment plants may be 1.00% Min.

Location	Minimum depth of cover (mm)	
	Cast iron & Ductile iron	Other materials
Subject to vehicular loading	300	500
All other locations	NIL	300

4.2 Licensing

Operating a system of sewage management is a Prescribed Activity under the Local Government Act 1993 and clause 45 of the Local Government (Approvals) Regulation 1999. This means that an 'Approval to Operate' a system of sewage management must be obtained from Council.

4.3 Detailed Design

A detailed system design may still be requested at the 'Application to Install' stage. This design will include the size and location of all system components including tanks, distribution lines, valves, etc. These additional requirements will be furnished by the nominated treatment system suppliers / licensed installers. Additional information for the property owner is available in Appendix C.

5 CONCLUSION

- It is proposed to construct Waste Management Education Facility at 120 Flatrock Road, Mundamia NSW
- The maximum anticipated wastewater loading rates generated by the Waste Management Education Facility is calculated to be **1,290 L/day**.
- It is proposed to primary treat all wastewater generated on-site via an NSW Health Accredited 5.0KL septic tank system.
- De-sludging of the septic tank is to occur at min 5yr frequency.
- Treated wastewater is to be stored in a collection well, with required well storage capacity and corresponding per Table 3.5.
- Collection well pump-out is to be arranged via a cartage contractor for the corresponding tank and interval selected from Table 3.5.

APPENDIX A: SITE PLAN



APPENDIX B: INFORMATION FOR THE PROPERTY OWNER

ON-SITE SEWAGE MANAGEMENT SYSTEMS

If you live in or rent a house that is not connected to the main sewer then chances are that your yard contains an on-site sewage management system. If this is the case then you have a special responsibility to ensure that it is working as well as it can.

The aim of this pamphlet is to introduce you to some of the most popular types of on-site sewage management systems and provide some general information to help you maintain your system effectively. You should find out what type of system you have and how it works.

More information can be obtained from the pamphlets:

Your Septic System
Your Aerated Wastewater Treatment System
Your Composting Toilet
Your Land Application Area

You can get a copy of these pamphlets from your local council or the address marked on the back of this pamphlet.

It is important to keep in mind that maintenance needs to be performed properly and regularly. Poorly maintained on-site sewage management systems can significantly affect you and your family's health as well as the local environment.

What is an on-site sewage management system?

A domestic on-site sewage management system is made up of various components which - if properly designed, installed and maintained - allow the treatment and utilisation of wastewater from a house, completely within the boundary of the property.

Wastewater may be blackwater (toilet waste), or greywater (water from showers, sinks, and washing machines), or a combination of both.

DO

- ✓ Learn how your sewage management system works and its operational and maintenance requirements.
- ✓ Learn the location and layout of your sewage management system.
- ✓ Have your AWTs (if installed) inspected and serviced four times per year by an approved contractor. Other systems should be inspected at least once every year. Assessment should be applicable to the system design.
- ✓ Keep a record of desludgings, inspections, and other maintenance.
- ✓ Have your septic tank or AWTs desludged every three years to prevent sludge build up, which may 'clog' the pipes.
- ✓ Conserve water. Conservative water use around the house will reduce the amount of wastewater which is produced and needs to be treated.
- ✓ Discuss with your local council the adequacy of your existing sewage management system if you are considering house extensions for increased occupancy.

DON'T

- ✗ Don't let children or pets play on land application areas.
- ✗ Don't water fruit and vegetables with effluent.
- ✗ Don't extract untreated groundwater for cooking and drinking.
- ✗ Don't put large quantities of bleaches, disinfectants, whiteners, nappy soakers and spot removers into your system via the sink, washing machine or toilet.
- ✗ Don't allow any foreign materials such as nappies, sanitary napkins, condoms and other hygiene products to enter the system.
- ✗ Don't put fats and oils down the drain and keep food waste out of your system.
- ✗ Don't install or use a garbage grinder or spa bath if your system is not designed for it.

Partial on-site systems - eg. pump out and common effluent systems (CES) - also exist. These usually involve the preliminary on-site treatment of wastewater in a septic tank, followed by collection and transport of the treated wastewater to an off-site management facility. Pump out systems use road tankers to transport the effluent, and CES use a network of small diameter pipes.

How does an on-site sewage management system work?

For complete on-site systems there are two main processes:

1. treatment of wastewater to a certain standard
2. its application to a dedicated area of land.

The type of application permitted depends on the quality of treatment, although you should try to avoid contact with all treated and untreated wastewater, and thoroughly wash affected areas if contact does occur.

Treatment and application can be carried out using various methods:

Septic Tank

Septic tanks treat both greywater and blackwater, but they provide only limited treatment through the settling of solids and the flotation of fats and greases. Bacteria in the tank break down the solids over a period of time. Wastewater that has been treated in a septic tank can only be applied to land through a covered soil absorption system, as the effluent is still too contaminated for above ground or near surface irrigation.

AWTS

Aerated wastewater treatment systems (AWTS) treat all household wastewater and have several treatment compartments. The first is like a septic tank, but in the second compartment air is mixed with the wastewater to assist bacteria to break down solids. A third compartment allows settling of more solids and a final chlorination contact chamber allows disinfection. Some AWTs are constructed with all the compartments inside a single tank. The effluent produced may be surface or sub-surface irrigated in a dedicated area.

Reducing water usage

Reducing water usage will lessen the likelihood of problems such as overloading with your septic system. Overloading may result in wastewater backing up into your house, contamination of your yard with improperly treated effluent, and effluent from your system contaminating groundwater or a nearby waterway.

Your sewage management system is also unable to cope with large volumes of water such as several showers or loads of washing over a short period of time. You should try to avoid these 'shock loads' by ensuring water use is spread more evenly throughout the day and week.

HELP PROTECT YOUR HEALTH AND THE ENVIRONMENT

Poorly maintained sewage management systems are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your management system you can do your part in helping to protect the environment and the health of you and your community.

For more information please contact:

Composting Toilets

Composting toilets collect and treat toilet waste only. Water from the shower, sinks and the washing machine needs to be treated separately (for example in a septic tank or AWTs as above). The compost produced by a composting toilet has special requirements but is usually buried on-site.

These are just some of the treatment and application methods available, and there are many other types such as sand filter beds, wetlands, and amended earth mounds. Your local council or the NSW Department of Health have more information on these systems if you need it.

Regulations and recommendations

The NSW Department of Health determines the design and structural requirements for treatment systems for single households. Local councils are primarily responsible for approving the installation of smaller domestic septic tank systems, composting toilets and AWTs in their area, and are also responsible for approving land application areas. The NSW Environment Protection Authority approves larger systems.

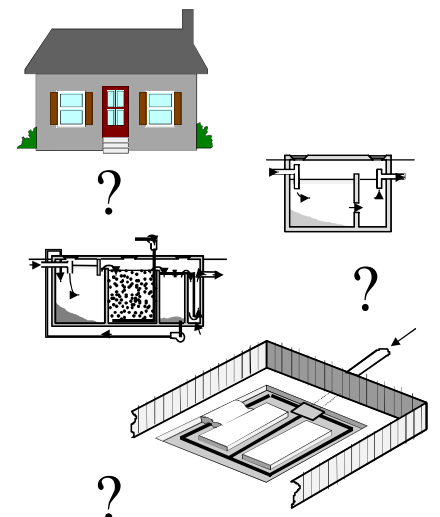
The design and installation of on-site sewage management systems, including plumbing and drainage, should only be carried out by suitably qualified or experienced people. Care is needed to ensure correct sizing of the treatment system and application area.

Heavy fines may be imposed under the Clean Waters Act if wastewater is not managed properly.

Keeping your on-site sewage management system operating well

What you put down your drains and toilets has a lot to do with how well your system performs. Maintenance of your sewage management system also needs to be done well and on-time. The following is a guide to the types of things you should and should not do with your system.

Managing Wastewater In Your Backyard



SEPTIC SYSTEMS

In unsewered areas, the proper treatment and reuse of household wastewater on-site is critical in ensuring minimal impact to public health and the environment. Septic systems have been developed as a way of achieving this.

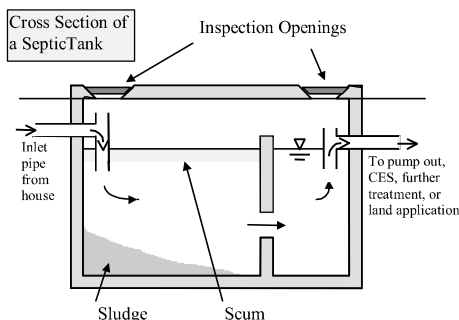
What is a septic system?

A septic system consists of a septic tank combined with a soil absorption system and/or transpiration beds or pump out connections. The system enables people living in unsewered areas to treat and disperse their sewage.

A septic tank is a structurally sound watertight tank used for the treatment of sewage and liquid wastes from a single household or multiple dwellings.

How does a septic system work?

All the wastewater from a household enters the tank. Most of the solids settle to the bottom and are retained in the tank forming a sludge layer, whilst fats and greases collect at the top in a scum layer.



Bacteria in the septic tank break down the solid matter in the sludge and scum layers. Material that cannot be fully broken down gradually builds up in the tank and must be pumped out periodically.

DON'T

- ✗ Don't put large quantities of bleaches, disinfectants, whiteners, nappy soakers and spot removers into your septic tank via the sink, washing machine or toilet.
- ✗ Don't allow any foreign materials such as nappies, sanitary napkins, condoms and other hygiene products to enter the system.
- ✗ Don't use more than the recommended amounts of detergents.
- ✗ Don't put fats and oils down the drain and keep food waste out of your system.
- ✗ Don't install or use a garbage grinder or spa bath if your system is not designed for it.

Reducing water usage

Reducing water usage will lessen the likelihood of problems such as overloading with your septic system. Overloading may result in wastewater backing up into your house, contamination of your yard with improperly treated effluent, and effluent from your system contaminating groundwater or a nearby river, creek or dam.

Conservative water use around the house will reduce the amount of wastewater which is produced and needs to be treated.

Your septic system is also unable to cope with large volumes of water such as several showers or loads of washing over a short period of time. You should try to avoid these 'shock loads' by ensuring water use is spread more evenly throughout the day and week.

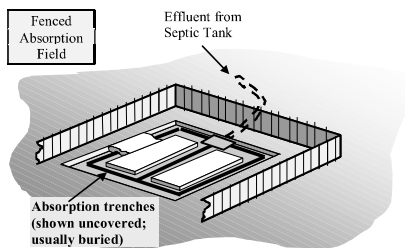
Warning signs

You can look out for a few warning signs that signal to you that there are troubles with your septic tank. Ensure that these problems are attended to immediately to protect your health and the environment.

There are three ways to handle septic tank effluent:

On-site application. The effluent flows from the septic tank to transpiration and/or absorption trenches. Here the effluent is mainly absorbed into the soil and partly evaporated by the sun and used by vegetation.

Such application systems have the potential to contaminate groundwater and are not recommended in sensitive locations or in higher density developments. Further treatment followed by subsurface irrigation should be considered.



Pump out. The effluent flows from the septic tank into a collection well or holding tank. At regular periods, a tanker pumps out the holding tank and transports the effluent to an off-site management facility.

Common effluent system (CES). The treated wastewater is transported to an off-site management facility through a network of small diameter pipes.

Regulations and recommendations

An on-site septic system requires approval from the local council before it is put in place. The regulations that apply to single household systems differ from those for multiple dwellings. The Environment Protection Authority (EPA) is responsible for approving septic tanks used to treat wastes generated by multiple dwellings like caravan parks and commercial and industrial premises. The NSW Department of Health determines the design and structural requirements for septic tanks and collection wells.

Look out for the following warning signs:

- ⚠ Water that drains too slowly.
- ⚠ Drain pipes that gurgle or make noises when air bubbles are forced back through the system.
- ⚠ Sewage smells, this indicates a serious problem.
- ⚠ Water backing up into your sink which may indicate that your septic system is already failing.
- ⚠ Wastewater surfacing over the land application area.

Trouble shooting guide

If there are odours check the following areas:

- △ Greasetrap (if installed), is it full or blocked?
- △ Absorption field, is it wet or soggy?
- △ Has there been recent heavy rain?

Odour problems from a vent on the septic system can be a result of slow or inadequate breakdown of solids. Call a technician to service the system.

HELP PROTECT YOUR HEALTH AND THE ENVIRONMENT

Poorly maintained septic tanks are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your septic system you can do your part in helping to protect the environment and the health of you and your family.

If you would like more information please contact:

Local councils have the authority to approve systems certified by the NSW Department of Health for individual properties and ensure the systems do not have adverse impacts on health and the environment. Local councils are responsible for ensuring that the approved system is installed according to specifications and any special conditions, and is maintained and serviced correctly. You should consult your local council on the regulations that apply to you.

Care of the septic tank is only a part of the maintenance of your septic system. Management of the treated wastewater from your septic system is your responsibility and is discussed in the pamphlet "Your Land Application Area". Heavy fines may be imposed if the effluent is managed improperly.

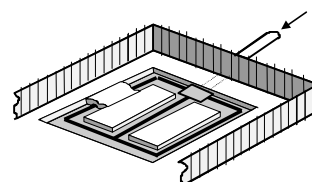
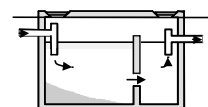
Maintaining your septic system

The effectiveness of the system will, in part, depend on how it is operated and maintained. The following is a guide on how to achieve the most from your system.

DO

- ✓ Have your septic tank deslugged every three years to prevent sludge build up, which may 'clog' the pipes and absorption trenches.
- ✓ Have your septic tank serviced annually by contractors to check scum and sludge levels, and the presence of blockages in the outlet and inlet pipes.
- ✓ Have your grease trap (if installed) cleaned out at least every two months.
- ✓ Keep a record of pumping, inspections, and other maintenance.
- ✓ Learn the location and layout of your septic system and land application area.
- ✓ Check household products for suitability for use with a septic tank.
- ✓ Use biodegradable liquid detergents, such as concentrates with low phosphorous.
- ✓ Ensure your tank is mosquito-proofed.
- ✓ Conserve water.

Your Septic System



LAND APPLICATION AREAS

The reuse of domestic wastewater on-site can be an economical and environmentally sound use of resources.

What are land application areas?

These are areas that allow treated domestic wastewater to be managed entirely on-site.

The area must be able to utilise the wastewater and treat any organic matter and wastes it may contain. The wastewater is rich in nutrients, and can provide excellent nourishment for flower gardens, lawns, certain shrubs and trees. The vegetation should be suitably tolerant of high water and nutrient loads.

How does a land application area work?

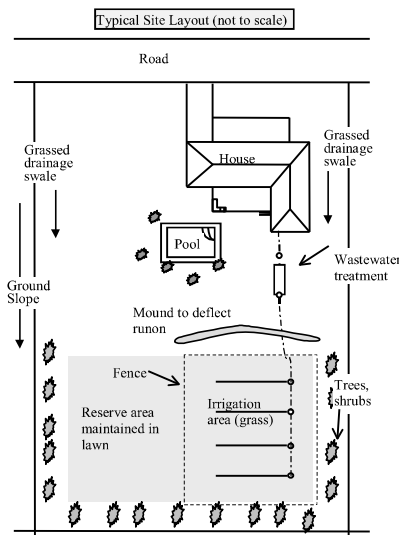
Treated wastewater applied to a land application area may be utilised or simply disposed, depending on the type of application system that is used. The application of the wastewater can be through a soil absorption system (based on disposal) or through an irrigation system (based on utilisation).

Soil absorption systems do not require highly treated effluent, and wastewater treated by a septic tank is reasonable as the solids content in the effluent has been reduced. Absorption systems release the effluent into the soil at a depth that cannot be reached by the roots of most small shrubs and grasses. They rely mainly on the processes of soil treatment and then transmission to the water table, with minimal evaporation and up-take by plants. **These systems are not recommended in sensitive areas as they may lead to contamination of surface water and groundwater.**

Irrigation systems may be classed as either subsurface or surface irrigation. If an irrigation system is to be used, wastewater needs to be pre-treated to at least the quality produced by an aerated wastewater treatment system (AWTS).

Subsurface irrigation requires highly treated effluent that is introduced into the soil close to the surface. The effluent is utilised mainly by plants and evaporation.

Surface irrigation requires highly treated effluent that has undergone aeration and disinfection treatments, so as to reduce the possibility of bacteria and virus contamination.



The effluent is then applied to the land area through a series of drip, trickle, or spray points which are designed to eliminate airborne drift and run-off into neighbouring properties.

There are some public health and environmental concerns about surface irrigation. There is the risk of contact with treated effluent and the potential for surface run-off. Given these problems, subsurface irrigation is arguably the safest, most efficient and effective method of effluent utilisation.

Regulations and recommendations

The design and installation of land application areas should only be carried out by suitably qualified or experienced people, and only after a site and soil evaluation is done by a soil scientist. Care should be

taken to ensure correct buffer distances are left between the application area and bores, waterways, buildings, and neighbouring properties.

Heavy fines may be imposed under the Clean Waters Act if effluent is managed improperly.

At least two warning signs should be installed along the boundary of a land application area. The signs should comprise of 20mm high Series C lettering in black or white on a green background with the words:

**RECLAIMED EFFLUENT
NOT FOR DRINKING
AVOID CONTACT**

Depending on the requirements of your local council, wet weather storage and soil moisture sensors may need to be installed to ensure that effluent is only irrigated when the soil is not saturated.

Regular checks should be undertaken of any mechanical equipment to ensure that it is operating correctly. Local councils may require periodic analysis of soil or groundwater characteristics

Humans and animals should be excluded from land application areas during and immediately after the application of treated wastewater. The longer the period of exclusion from an area, the lower the risk to public health.

The householder is required to enter into a service contract with the installation company, its agent or the manufacturer of their sewage management system, this will ensure that the system operates efficiently.

Location of the application area

Treated wastewater has the potential to have negative impacts on public health and the environment. For this reason the application area must be located in accordance with the results of a site evaluation, and approved landscaping must be completed prior to occupation of the building. Sandy soil and clayey soils may present special problems.

The system must allow even distribution of treated wastewater over the land application area.

Maintaining your land application area

The effectiveness of the application area is governed by the activities of the owner.

DO

- ✓ Construct and maintain diversion drains around the top side of the application area to divert surface water.
- ✓ Ensure that your application area is kept level by filling any depressions with good quality top soil (not clay).
- ✓ Keep the grass regularly mowed and plant small trees around the perimeter to aid absorption and transpiration of the effluent.
- ✓ Ensure that any run off from the roof, driveway and other impermeable surfaces is directed away from the application area.
- ✓ Fence irrigation areas.
- ✓ Ensure appropriate warning signs are visible at all times in the vicinity of a spray irrigation area.
- ✓ Have your irrigation system checked by the service agent when they are carrying out service on the treatment system.

DON'T

- ✗ Don't erect any structures, construct paths, graze animals or drive over the land application area.
- ✗ Don't plant large trees that shade the land application area, as the area needs sunlight to aid in the evaporation and transpiration of the effluent.
- ✗ Don't plant trees or shrubs near or on house drains.
- ✗ Don't alter stormwater lines to discharge into or near the land application area.
- ✗ Don't flood the land application area through the use of hoses or sprinklers.
- ✗ Don't let children or pets play on land application areas.
- ✗ Don't water fruit and vegetables with the effluent.
- ✗ Don't extract untreated groundwater for potable use.

Warning signs

Regular visual checking of the system will ensure that problems are located and fixed early.

The visual signs of system failure include:

- ⚠ surface ponding and run-off of treated wastewater
- ⚠ soil quality deterioration
- ⚠ poor vegetation growth
- ⚠ unusual odours

Volume of water

Land application areas and systems for on-site application are designed and constructed in anticipation of the volume of waste to be discharged. Uncontrolled use of water may lead to poorly treated effluent being released from the system.

If the land application area is waterlogged and soggy the following are possible reasons:

- ⚠ Overloading the treatment system with wastewater.
- ⚠ The clogging of the trench with solids not trapped by the septic tank. The tank may require desludging.
- ⚠ The application area has been poorly designed.
- ⚠ Stormwater is running onto the area.

HELP PROTECT YOUR HEALTH AND THE ENVIRONMENT

Poorly maintained land application areas are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your sewage management system you can do your part in helping to protect the environment and the health of you and your family.

For more information please contact:

Your Land Application Area

