



Information Sheet 7 - Domestic Wastewater & Effluent Disposal Systems

The main objective of a septic tank system is the safe and effective disposal of wastewater in a manner that prevents transmission of disease, odour, contamination of ground water or surface water or have adverse effects on the environment.

A wastewater system may include:

- A distribution system, pump, siphon or gravity.
- An effluent disposal system, trenches, beds or dripper lines.
- Treatment tanks, passive or aerated.

Sewerage and sullage wastes enter the septic tank where settlement of solid matter occurs. Anaerobic bacteria then partly breakdown this solid matter within the tank. Your septic tank system requires this bacteria to operate effectively. These organisms live and breed in your septic tank. Disposing of any chemicals (paint, disinfectant, petrol etc) from your drains or toilets can harm the life balance required for those organisms to do their job and the result would be your septic tank would fail to work.

Effluent is the liquid discharged from the wastewater treatment unit. An effluent disposal system usually consists of a series of underground pipes on a gravel bed referred to as an effluent line.

Effluent Disposal systems/drainage and alteration work

Maintenance Advice

These ground based systems require regular inspection and maintenance to ensure they continue to operate efficiently and to ensure effluent is contained on the property and does not pose a hazard to people or animals.

The primary wastewater treatment unit (septic tank) will need to:

- Be de-sludged regularly i.e. 3-5 years or when scum and sludge occupy 2/3 of the volume of the tank (or first stage of a two stage tank)
- Be protected from vehicles.
- Have any grease trap cleaned out regularly.
- Keep the vent and access cover exposed.
- Have any outlet filter inspected and cleaned.
- Avoid use of garbage grinders.
- Avoid putting stormwater or surface water into septic tank or effluent field.
- Shape and contour the ground so surface water will not pond.

Advice on Operating Problems

Problems can occur with systems which have not been maintained and where absorption areas have become blocked or clogged. The warning signs are obvious:

- Absorption field is wet or soggy with wastewater ponding on the surface of the ground.
- There is a smell of "sewerage" near the septic tank or absorption area.
- The drains and toilets run slowly.
- The grease trap is full or blocked.

Items to think about:

- Installing a new or replacing a failed system will require a building consent.
- Often a site assessment/ percolation test will need to be carried out by an approved assessor. The assessor will design a system or identify the work required to rectify the failure. Alternatively a recognised wastewater engineer can design a suitable system. This system must be based on the site assessment. Assessors evaluate the soil type, percolation (or soakage) rate and then use a set of standard tables that consider variables such as potential number of bedrooms and water supply, to design a system that will suit your dwelling and provide environmental protection.

Known assessors are:

Gary Thompson, Thompson Drainage, 81 Innes ST Gisborne 06 967 4902
Alan Hall, 8 Ferry Rd RD1 Gisborne 06 862 5597

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- When doing alteration work to an existing dwelling by adding additional bedrooms consideration must be given to the size and capacity of the existing effluent disposal system or septic tank.
- Confirmation of the capacity of the existing septic tank must be provided with your building consent application. This can be done by measuring the width, length and depth to give the cubic metre or litre capacity or this may be available by checking Council records of as-built drainage plans on your property file.
- Further information of litre capacity in regards to numbers of bedrooms can be checked out with your drain layer or in AS/NZS 1547:2000 On-site Domestic Wastewater Management.
- Building over existing drainage work may be another consideration when doing alteration work. An as-built drainage plan may be available when a PIM is requested to enable location of drains but often there are no records available. Professional advice should be obtained if building over existing drainage.
- Properties with a high water table should use soil dosed irrigation system to ensure good effluent disposal at all times of the year.

HBRC Approval

For properties of less than 2500m² Hawke's Bay Regional Council discharge consent is required prior to issue of building consent.

Holding Tanks

Council has approved the temporary installation of holding tanks for sewerage within the Mahia Settlement area where a reticulation system is proposed subject to the following conditions:

1. That the Regional Council has no objections. (There is no discharge).
2. That the tank is fitted with an audible and visual alarm system.
(Audible alarm set at 6000L. This should give the owner 3 days capacity to arrange for the tank to be pumped out).
3. That a suitable contractor regularly monitors the tank. A maintenance schedule is to be presented for Council records.
4. That when Council has installed the reticulation, the tank must be by-passed and removed from site at owners expense.
5. That in the event that Council does not proceed with the sewerage system that an effluent disposal system approved by HBRC be installed forthwith.
6. That the holding tank has a minimum capacity of 10,000L for a 3 bed roomed house.
7. That the tank has a good quality carbon filter fitted to allow the tank to work properly and not cause any odour nuisance.