



7. Unreticulated Sewage Systems

7.1 Issues

A large portion of the region does not have a reticulated sewage system. Individuals disposing of their own domestic wastes can cause adverse effects. These effects can be both localised and cumulative

In all locations except Gisborne City, Te Karaka and part of Te Puia, properties dispose of sewage on site. The most common systems in use are septic tanks of various designs, with effluent disposed of to soakage fields. Other systems are also available. These can all be effective methods of treating sewage and rendering it harmless if correctly designed, installed and operated.

Soakage fields can cause adverse effects where soakage is inadequate or the systems block. Sewage can then break out to the surface of land or enter waterways. If effluent ponds, this can transmit disease, cause odours and attract insects.

Where soakage is adequate, these systems can still contaminate shallow aquifers, or watercourses with nutrients, bacteria and viruses. This can affect the ecology of the waterway. It can also impact on human health where the water is used for domestic supply or where people come in contact with it. These systems produce septage. This is semi-solid waste that accumulates in septic tanks. It is generally collected by commercial operators and disposed of into a piped system or onto land. Land disposal of septage can cause problems of land and water contamination, odour, breeding of rodents and insects, and the transmission of faecal bacteria and viruses.

These systems must be correctly designed for the site, because soakage conditions vary widely throughout the region. Maintenance is also essential or systems break down.

7.2 Objectives

1. The adverse environmental effects from discharges from non-reticulated domestic waste disposal systems shall be avoided, remedied or mitigated.

Principal Reason

Disposal of liquid effluent and periodic disposal of cleanings from septic tanks and other treatment systems has the potential to contaminate land and waterways. This can create risks to health, ecosystems and to amenity values. A large proportion of the Region relies on septic tanks. Such risk is contrary to the purposes and principles set out in Part II of the Resource Management Act.

7.3 Policies

1. Systems used for disposal of effluent in non-reticulated areas shall be suitably designed for the local conditions. They shall be maintained often enough to operate without causing adverse environmental effects.

Principal Reason

Systems must be carefully designed to be suitable for local conditions such as soil types, slope, aspect and drainage patterns, and for the intensity of use proposed.

There are no systems suitable for all sites. Even correctly designed systems will break down if not regularly maintained. A very important requirement is for periodic emptying of septage from septic tanks.

2. Where a reticulated sewerage system is available sanitary fixtures should generally be connected to it.

Principal Reason

Piped sewerage systems exist only in closely settled areas. Section sizes are usually small and population densities are high. The effects of private systems breaking down in such areas are likely to be high. Such systems are expensive to install and maintain.

Note: This policy does not prevent the use of alternative sanitary systems in reticulated areas.

3. The design and operation of non-reticulated disposal systems shall ensure the following adverse effects are avoided:
 - ▶ Transmission of disease.
 - ▶ Contamination of surface, coastal and groundwater with nutrients or disease causing organisms.
 - ▶ Odours.
 - ▶ Saturation of ground or ponding.
 - ▶ Adverse effects on habitats, feeding grounds or ecosystems.

Principal Reason

These are the adverse effects that are likely when private systems break down, or are wrongly designed.

They are all effects that should be avoided as a matter of priority. Remedying of any effects caused by breakdowns is necessary but the emphasis must be on avoiding the effects in the first place. This is not an appropriate area for mitigation, as none of these effects are acceptable in any degree.

7.4 Methods of Implementation

1. The Council will develop a programme aimed at educating homeowners about how to manage their non-reticulated domestic waste disposal systems and options for new installations.

Principal Reason

Experience has shown that people are often unaware of maintenance requirements or forget to manage their systems until breakdowns occur. This can be expensive for them and causes adverse effects until the problems are repaired. Council often receives requests for advice on appropriate systems, and is in a good position to keep up with new technology and pass it on.

2. The Council will investigate and where appropriate implement options for ensuring that septic tanks are emptied regularly and the contents are handled and disposed of in the most satisfactory manner.

Principal Reason

This aspect is so frequently ignored by property owners that there is a need for a more rigorous system to ensure this essential work takes place.

3. Where necessary the Council will require that alternative specialised systems be installed.

Principal Reason

Where systems are causing adverse effects through defects or unsuitable design Council will require upgrading to avoid these effects.

4. The Council will:

- ▶ Establish or facilitate as necessary disposal facilities for camper van and septic tank wastes.
- ▶ Facilitate in the dissemination of information on the disposal of camper van waste, and the maintenance and disposal of waste from septic tanks.

Principal Reason

Unless sites are available for emptying these tanks then some people and some contractors will empty them in unsuitable locations including road verges, side roads, beach fronts, river banks, reserves and rest areas. Provision of information on where and how to dispose of such wastes will serve to reduce the amount of inappropriate discharges in the region.

5. The Council will monitor the effects of non-reticulated domestic liquid waste disposal on ground and surface water.

Principal Reason

This will enable the Council to make informed decisions where remedial or preventative actions are required.

6. The Council will develop appropriate guidelines for the control of non-reticulated domestic waste in new subdivisions and developments

Principal Reason

Adverse effects are best avoided by imposing standards at the development stage.

7.5 Rules for Unreticulated Sewage Disposal

Permitted Activities

Rule 7.5.1 Permitted Activity Discharges Arising from Non-Reticulated Waste Disposal Systems in Unreticulated Areas

A. New Systems

The discharge of up to 2 cubic metres of sewage effluent per day into the ground from a waste water treatment plant with a maximum septic tank capacity of 5,000 litres shall be a **permitted activity** provided that:

- a) No reticulated sewerage system is available.
- b) The requirements of Appendix 5 are met.

Provided that systems in existence at the date of notification of this plan need not comply with the maximum discharge unless they are completely or partially replaced.

NOTE: Such systems also require consent under the Building Act 1991.

B. Existing Systems

Subject to C. below, the discharge of sewage effluent into the ground from an on site waste water treatment plant existing at the date of notification of this Plan shall be a permitted activity provided that the following conditions are met.

- a) There must be no direct discharge of effluent into water.
- b) A building consent or drainage permit must have been issued and complied with for the system.

Note: If any such existing system creates any adverse effect on human health or the environment the Council may require the system to be upgraded pursuant to section 322 of the Resource Management Act 1991. The circumstances in which the Council shall require an upgrade are specified in Rule 7.5.1(c) of this plan.

C. Upgraded Systems

Where:

- a) The use of existing buildings serviced by a system increases the quantity or characteristics of waste beyond that for which the system was designed or is capable of adequately treating.
- b) Building alterations, additions or new buildings are proposed which are likely to increase the quantity of waste.
- c) Part of the existing system fails and requires replacement.

The system shall be upgraded so that the resultant discharge of sewage effluent into ground complies with the requirements of Clause A of this rule.

Principal Reason

This rule avoids the need for resource consents for every new domestic treatment system, while providing for a satisfactory standard of treatment.

Rule 7.5.2 The Discharge of Septage to Land

The disposal of septage by discharge to land shall be a **permitted activity** subject to the following conditions:

1. Disposal must be carried out by a registered⁵ operator.
2. Septage must originate from the same land as it is disposed on.
3. Disposal must occur within a maximum 14 day period.
4. The site shall not be used more than once for the disposal of septage.
5. The disposal site must meet the following requirements:
 - (a) It shall be located at least 150 metres from the property boundary, and 150 metres from any dwelling, and 100 metres from any water course, 150 metres from any bore used for domestic or stock water supply, or 10 metres from any other bore or well, and not within an area sensitive to coastal hazard⁶.
 - (b) The base of the septage shall be at least two metres from the highest water table and any impermeable layer or any layer with a percolation rate less than 12mm/hour.
 - (c) The site shall consist of well drained soil but not sand or gravel.
 - (d) Slope must not exceed 20°.
 - (e) The site shall be protected from any surface water run off.
 - (f) The volume of the disposal site shall be at least 1.5 times the volume of effluent to be disposed of. (*Note that shallow and wide is better than deep and narrow.*)
 - (g) Immediately following disposal, the septage shall be covered sufficiently to prevent access by vermin.
 - (h) The site shall be adequately fenced prior to disposal occurring, to prevent access by animals or children, and shall remain fenced until filled, left to dry and covered upon completion.
6. Any spillage must be immediately cleaned up and placed in the pit.
7. When the material has solidified it must be covered with a minimum final cover of at least 600mm which must be domed to accommodate any future settling.
8. Registered operator meaning an operator registered as 'Offensive Trade' pursuant to the Health Act 1957.
9. These areas are described in Appendix 5 of the Proposed Regional Coastal Environment Plan for the Gisborne Region.

⁵ Registered operator meaning an operator registered as 'Offensive Trade' pursuant to the Health Act 1957.

⁶ These areas are described in appendix 5 of the Proposed Regional Coastal Environment Plan for the Gisborne Region.

10. The disposal site must be marked on a site plan and submitted to the Council within fourteen days of disposal taking place together with details of the approximate volume of septage disposed, its source, disposal date, site legal description and location, operators name, owners name and address.
11. The Gisborne District Council, servants or agents be permitted access to the relevant parts of the property at all reasonable time for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
12. Any costs incurred by the Council in undertaking these activities are to be met by the landowner.

Restricted Discretionary Activities

Rule 7.5.3 Discharges arising from non-reticulated liquid waste disposal systems

shall be a **restricted discretionary** activity where a sewerage system is available. The Council's discretion shall be limited to the matters set out in Policy 7.3.3.

Principal Reason

Where a system is available, then connecting sanitary fixtures to it will generally provide the best means of avoiding adverse environmental effects. The limits to availability are selected to be consistent with section 459 of the Local Government Act 1974. This rule provides an exception under which alternative proposals may be assessed on their merits by resource consent.

Rule 7.5.4 Discharges Arising from Non-Reticulated Waste Disposal Systems in Unreticulated Areas

Except as provided in Rule 7.4.1, non-reticulated liquid waste disposal systems shall be a **restricted discretionary activity**. The Council's discretion shall be limited to the matters set out in Policy 7.2.3, and such applications may be made without obtaining the consent of affected persons.

Principal Reason

This rule ensures that larger or unusual systems are able to be considered on their merits, so that adverse effects from such systems are avoided.

Discretionary Activity

Rule 7.5.5 The Discharge of Septage to Land

The disposal of septage by discharge to land shall be a **discretionary activity** where:

- a) The proposed disposal site is on land from which the septage did not originate or
- b) The site is used more than once for the disposal of septage or;
- c) The disposal does not comply with any requirement of Rule 7.5.4.

Where septage disposal sites are used more than once, the Council will as a condition of consent, require consent holders to:

- (a) Prepare and update annually a management plan to the satisfaction of the Council. This shall specify the key aspects of operation of the facility including any relevant matters listed in Appendix 3: Schedule B to the Plan;
- (b) Collect from all persons placing septage in the facility information including:

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- ▶ Person's name.
 - ▶ Quantities and numbers of loads placed.
 - ▶ The nature of the material placed.
 - ▶ Dates when septage was placed.
- (c) Carry out at least one random check of the facility each year to ensure those using the facility are complying with the management plan and the terms of the consent;
- (d) Furnish to the Council an annual report covering:
- ▶ The matters listed in Appendix 3: Schedule C to the Plan.
 - ▶ Results from (b) and (c) above.
 - ▶ Any departure from the facility management plan and the reasons for the departure.
 - ▶ Any environmental problems or complaints received about operation of the facility.

Principal Reason for Rules 7.5.2 and 7.5.5

Land disposal of septage can cause problems of land and water contamination, odour, breeding of rodents and insects, and the transmission of faecal bacteria and viruses if the septage is concentrated and the disposal sites are used repeatedly. Good operating standards and regular monitoring are essential to avoid adverse environmental problems building up.