

On-site wastewater management – treatment and disposal systems maintenance and trouble-shooting

This fact sheet aims to provide homeowners with a summary of the Auckland Regional Council's (ARC) recommendations for maintenance of onsite wastewater treatment and disposal systems.

■ Maintenance requirements

Routine maintenance of the system is critical for optimising the performance of wastewater treatment and disposal systems. This will increase the life of the systems and may reduce the potential adverse effects on the environment and public health. By undertaking regular maintenance, the likelihood of equipment failures can be reduced.

■ Maintenance service contracts

Wastewater system owners are required to enter into a maintenance contract with the system supplier or other contractor experienced in wastewater treatment and disposal system operation and maintenance.

The frequency of maintenance servicing will depend on a range of factors, including:

- The system type and associated components
- Specific details of design and construction
- Treatment system performance, and whether expected treated wastewater quality levels are being achieved
- The loading on the system and whether this is within the operating capabilities of the wastewater treatment or disposal systems
- The level of routine maintenance undertaken by the homeowner
- The precautions undertaken by the homeowner to prevent the addition of inappropriate chemicals or substances to the wastewater treatment system

To ensure the necessary maintenance is undertaken, the ARC requires that maintenance servicing is undertaken on all wastewater treatment and disposal systems at least every six months. Some systems will require more frequent servicing.

As a guide, the maintenance service should include inspection to confirm at least the following:

- Gully traps are above ground level and correctly grated
- Down pipes are not directed into any gully traps
- All tank risers and lids are water tight and properly fastened
- That when the combined level of scum and sludge in the septic tank is 50 per cent of the tank volume it is pumped out (local bylaws may apply)
- That the septic tank outlet filter is clean and in place
- Alarms are functioning correctly and are audiovisual
- The disposal field is evenly loaded and there are no damp areas or wastewater breakout on the ground surface
- The drip irrigation lines are functioning correctly and are flushed clean
- The inline disc filter is clean and installed correctly
- There is no stormwater run-off onto the wastewater disposal field

Maintenance checklists for service contractors are available from the ARC on request.



Photo: Demonstration of the removal of an inline disc filter for cleaning.

■ Maintenance – home owner responsibilities

The ARC recommends that at the time of installation, or of the first maintenance service, that the basic day-to-day maintenance requirements of the wastewater treatment and disposal system are explained and demonstrated to homeowners.

The homeowner should also be shown how to safely access the septic tank for inspection purposes. The ARC recommends that the homeowner learns how to undertake the following basic maintenance procedures:

Maintenance Procedure	Recommended Frequency
How to clean and correctly reinstall the septic tank effluent outlet filter	3 monthly
How to clean and correctly reinstall the inline disc filter	Monthly
How to inspect the wastewater disposal field for evidence of uneven loading (e.g. wet areas, ponding of wastewater)	Weekly – Fortnightly
The location of stormwater cut-off drains and how to clean these drains to prevent stormwater flows to the wastewater field	Weekly – Fortnightly

The system supplier or wastewater consultant should provide the home owners with a wastewater management plan. This management plan should include a summary and schedule of maintenance requirements and the contact details of a person to respond to in case of emergency alarms or system malfunctions.

Trouble-shooting

The following is a list of possible actions in the event of problems with on-site wastewater treatment and disposal systems.

Note: In all cases the ARC recommends that the system supplier or wastewater maintenance contractor be consulted in the first instance

Problem	Solution
Septic tank bacterial breakdown	Use soft soap solutions or biodegradable cleaners for cleaning Use only detergents low in alkaline salts, phosphorous, and chlorine levels Avoid heavy use of detergents and disinfectants as they affect the bacterial action within septic tanks Do not discharge any pharmaceutical medication or disinfectants into the wastewater system
Odour	Insert activated carbon filters into the septic tank vents In the case of an aerobic treatment plant, contact supplier and ensure system is sufficiently aerated
Blocked septic tank effluent outlet filter or inline disc filter	Cleaning is required
Septic tank overflow	Engage drain layer/contractor to investigate any blockages immediately Pump out the septic tank Decrease water usage until problem is remedied Ensure that the system includes high level alarms and 24 hours of emergence storage capacity
Clogged disposal system	Consult with maintenance service provider Pump out the septic tank and flush the disposal lines Inspect and/or consider reconstruction of disposal system and/or individual lines Upgrade the treatment system to improve treatment levels and replace/upgrade disposal system to a pressure compensating drip irrigation system

Problem	Solution
Overflow / wet areas on the wastewater disposal field	Pump out septic tank and reduce water usage in immediate term Increase the disposal field area Re-locate the disposal area further away from the house and trees or on the northern side of the house to increase evaporation i.e. provide good exposure to sun and wind Ensure the wastewater disposal area is densely planted to increase evapotranspiration Restrict/avoid access to the field.
Excessive wastewater production / Unknown wastewater production	Install a water meter Install water reduction fixtures Decrease water usage
Rainfall runoff causes water logging of wastewater disposal field	Check that no roof downpipes discharge to gully traps or on land where it could drain onto the disposal area Install stormwater cut-off drains upslope of disposal area Inspect and clean out stormwater cut-off drains
Continuing unresolved problems	Engage a consultant experienced in wastewater treatment and disposal systems Upgrade/replace the treatment level of the system or the wastewater disposal system Enter into a maintenance contract with an experienced wastewater maintenance contractor

■ Who to contact if your system is failing or you observe a failing system:

- An environmental or geotechnical consultant experienced in wastewater treatment and disposal systems
- An Environmental Health Officer at your local council
- An ARC Wastewater Officer on 09 366 2000, press 1
- The ARC 24-Hour Water Pollution hotline on 09 377 3107 for water pollution

■ For more information

The information contained in this fact sheet is based on the ARC Technical Publication 58 (TP58) (2004). The ARC has a range of fact sheets about on-site wastewater management. Copies are available online at www.arc.govt.nz or upon request. Topics include:

- Septic Tanks
- Consent Compliance
- A Guide for Homeowners
- Post Construction Information Requirements

How do I contact the ARC?

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