

OPERATION AND CARE OF SEPTIC TANKS

Development Services:



Operation of Septic Tank

Sewage and sullage wastes enter the septic tank where anaerobic bacteria partly breakdown the solid matter that has entered. The heavier solid matter falls to the bottom of the tank and forms a sludge, whilst any fats and other lighter matter floats to the top surface to form a scum layer.

The effective settling of solids is dependent upon the detention time within the tank and the minimum time that should occur is 24 hours. If this does not occur, the breakdown of suspended solids will not be achieved. (BOD – Biochemical Oxygen Demand)

Prohibited discharges into the Septic Tank

- any storm water, including roof and rainwater tank overflow and surface drainage waters.
- any backflush waters from a swimming pool or water softener.
- any discharge or backflush from a spa bath/pool in excess of 680 litres capacity.
- any sanitary napkin, clothing or plastic material or liner.
- any trade waste.
- any petrol or other flammable or explosive substance whether solid, liquid or gaseous.
- any disinfectant or deodorant, antiseptic or germicide powder or fluid, unless specifically stated to be suitable for use in a septic tank.
- any other matter or substance which, in the opinion of Council's Environmental Health Officer would impair the effective working of a septic tank.

Please Note: Penalties apply for non-compliance.

Odour Control

Under normal operating conditions, the septic tank will discharge a slight odour.

When offensive odours discharge from a septic tank, the problem is usually caused by acidic conditions within the tank. These conditions destroy the bacteria (anaerobic) activity in the breaking down of solids, which will enhance the odour build-up.

This may be corrected by :-

- a) the addition of 5kg of hydrated lime mixed into a solution of water and flushed into the septic tank. Depending on the degree of pH imbalance, it may be necessary to apply several dosing of lime, spread over a period of 2-3 days.
- b) Preventing the discharge of substances into the septic tank that inhibits the bacterial activity in breaking down solids.

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De-sludging the Septic Tank

The accumulation of sludge and scum may block the inlet, outlet and transfer openings and flow into the soakage system.

Accumulated sludge and scum reduces the volume available for storage and treatment of incoming sewage and the accumulation **must** be removed/pumped out every 3-4 years. This period of time will be reduced where a food waste disposal unit is installed.

Effluent Disposal (sub-surface)

The effective functioning of any septic tank system not only depends on a correctly designed, sized and installed system, but a properly maintained effluent system.

Every litre of water entering the septic tank must be disposed of through an approved sub-surface system located within the confines of the allotment. The sub-surface system is most important and if it is not effective, the whole system may break down.

Outlined below are a few basic rules that can eliminate unnecessary wastage of water and extend the working life and effectiveness of the sub-surface effluent disposal system.

Basic Rules

- Spend less time when taking a shower
- Using less water when taking a bath
- Use the sud-saving cycle on washing machines (where fitted)
- Use the lower water levels on washing machines
- Select the rinse cycles on washing machines that use the least amount of water
- Reduce the amount of water used when washing hands, hair and cleaning teeth
- Reducing the amount of water used when flushing the toilet (use dual flush cisterns)
- Minimize the amount of water when rinsing dishes in the kitchen sink
- Use the cycle requiring the least amount of water in dishwashing machines
- Repair all leaking or dripping taps, cisterns and safety valves on hot water systems
- Ensure all discharges from air-conditioners are not connected into the septic tank system

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Protect the sub-surface effluent disposal system from migrating sub-surface and surface waters by :-

- Divert roof, rainwater tank overflow and storm waters to the street water table or to an area beyond the disposal system
- Installing a sub-surface diversion trench where applicable on the high side to direct migrating surface and sub-surface waters to the street water table
- Minimising the watering of lawns or gardens adjacent to and above the disposal system
- Restrict the washing of cars, boats and the like, adjacent to and above the disposal system

Property owners which have effluent disposal systems that have become inadequate or have ceased to function due to the flooding of disposal trenches by sub-surface water or storm water, may need to complete the following.

- Install additional disposal trenches in the topsoil. Effluent may have to be lifted by a motor operated pump to the new disposal area/s. When a pumping chamber is not part of the existing system, one may need to be installed.
- It also may be necessary to introduce suitable soil filling to cover the disposal units or drain, where low lying storm water exist on allotments.

Effluent Disposal (Aerobic systems)

The reclaimed water must have at least *0.5mg/litre of free residual chlorine* at the first point of discharge on the surface irrigation disposal area. The aerobic wastewater treatment system must be maintained at all times to ensure that the following requirements are satisfied:

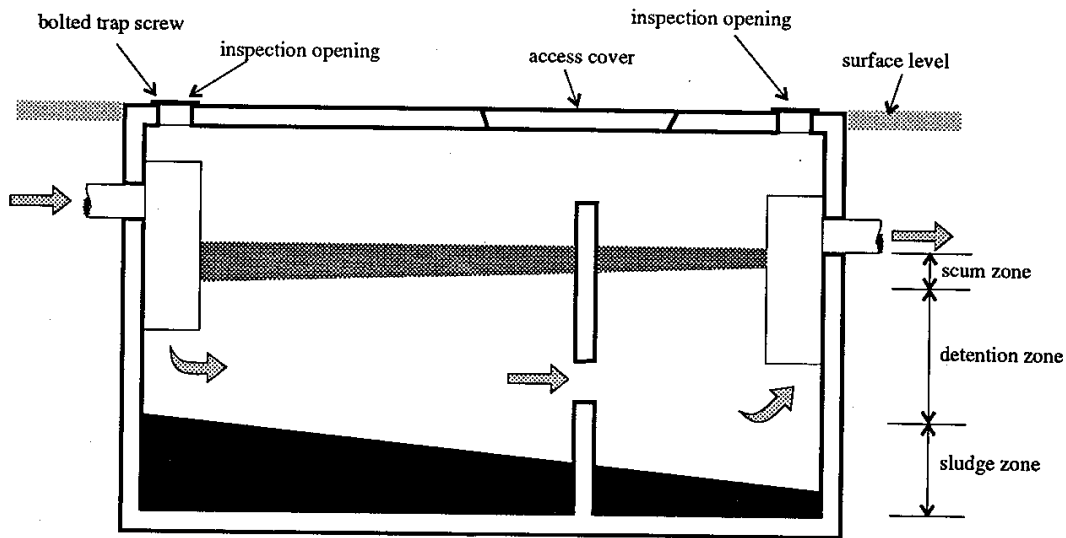
- The reclaimed water from the system complies with the conditions for approval including the specific discharge criteria.
- The irrigation system is maintained to a standard that prevents it from creating an environmental nuisance and or risk to health. Such maintenance is to prevent the occurrence of spray drift, misting, pooling and run-off from the surface irrigation disposal area. Heavy penalties apply for the illegal or unauthorized discharge of effluent, treated effluent or reclaimed water.

Further information relating to waste control systems, contact Council's Environmental Health Officer by telephoning 08 8635 2107

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Care of Septic Tank Systems



Odour Control – Effluent Disposal
De-sludging – Prohibited Discharges