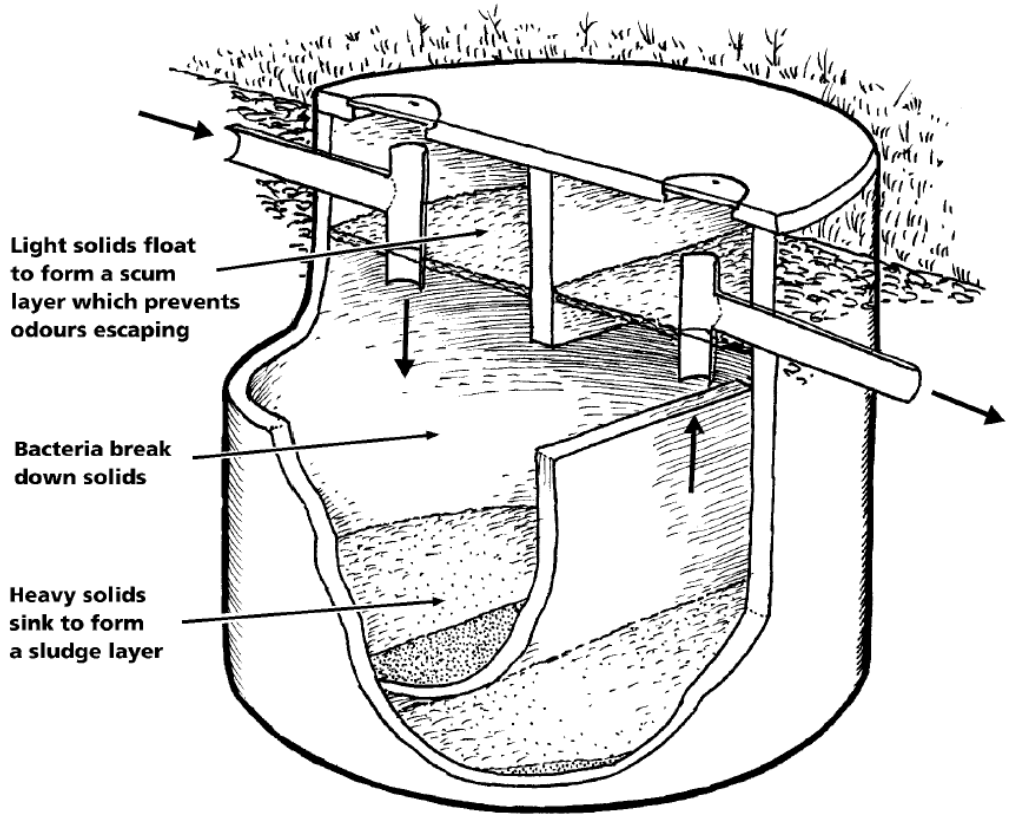
SEPTIC TANK SYSTEMS

There are two common types of septic tank systems –

The **all purpose system** takes both toilet and greywater waste such as bath, kitchen and laundry into a single septic tank. The tank can be plastic or concrete and is usually a 2500 or 3900 litre capacity tank measuring approximately 1.9 metres in diameter.

With this type of system a grease trap may or may not be installed on the kitchen sink drain. The all purpose septic tank has extra capacity where solids and fats can settle. Also the tank outlet may have a filter installed as an added measure to prevent solid carry over.

The primary treated effluent from the tank flows via a distribution box or pump well into a sub-surface **land application system** (e.g. absorption trenches/beds, evapo-transpiration-absorption trenches/beds or a mound). (See **Types of Land Application Systems**)



The **septic tank with split greywater disposal** has two tanks, one being the septic tank taking toilet waste only and the other a greywater pumpwell taking all other household wastewater.

The septic tank can be plastic or concrete and usually has a 1600 litre capacity measuring approximately 1.350 metres in diameter. The primary treated effluent from the tank flows via a distribution box to disposal trenches in the land application area.

The greywater pumpwell can be plastic or concrete and usually has a 450 litre capacity measuring approximately 0.900 metres in diameter. Inside the pumpwell is a submersible electric pump which discharges the untreated greywater onto lawns and gardens via a hose and sprinkler. A grease trap is installed on the kitchen drain prior to connecting to the pumpwell system. The grease trap can be plastic or concrete and may be either a circular 45 litre or a rectangular 140 litre capacity.

Other split systems may not have a pumpwell, in this case the greywater will flow via a distribution box to disposal trenches in the land application area.

These septic tanks with a split greywater disposal are not approved anymore but are still in use.

MAINTENANCE

It is strongly recommended that you have an inspection and maintenance schedule in place for your on-site sewerage facility (see maintenance record sheet). The purpose of having a schedule is to protect you and the community's health, preserve the environment and prevent costly repairs or replacement of the system.

Septic Tank

- The septic tank should be in good condition with its lid and all inspection openings sealed and above ground level so to prevent the ingress of stormwater and allow for maintenance access.
- Both inlet and outlet baffles are to be in place to avoid solid overflow to the land application system (trenches).
- The outlet filter if fitted, should be checked annually.
- Sludge levels should be checked and if found to be above two thirds of the tank capacity will need to be pumped out. The tank is to be desludged by pumping out and refilled with water by a council approved liquid waste contractor.
- Vent pipes are to have mosquito proof cowls fitted to minimise mosquito breeding in the system.

Greywater System

- Both the grease trap and greywater pumpwell should be in good condition with their lids and all inspection openings above ground level to prevent the ingress of stormwater and allow for maintenance access.
- Both grease trap and pumpwell are to be cleaned on a regular basis to avoid the likelihood of unpleasant odours, blockages and pump failure.
- The pumpwell's power supply, electric pump and automatic float switch are to be in good operational condition, connected to a lilac coloured hose and heavy droplet sprinkler.
- Vent pipes are to have mosquito proof cowls fitted to minimise mosquito breeding in the system.

Land Application System/Area

- Inspect the land application system (trenches/mound) to ensure they are still functional and there is no surface ponding or run off of primary effluent. All effluent is to be discharged in the land application area. Know where the trenches and distribution box are and if possible provide a means of delineation or keep a record on a site plan.
- Surface water and roof water discharge should be kept away from the land application system. Surface water is to be diverted on the high side by diversion mounds, drains or a moisture barrier.
- The greywater sprinkler is to be kept away from the land application system and positioned to prevent discharge entering into or causing a nuisance to neighboring properties (see **Set Back Distances for Surface Effluent Irrigation**).

MAINTENANCE HINTS FOR SEPTIC TANK SYSTEMS

 **DO**	**DON'T DO** 
• **Do** keep a maintenance schedule with annual inspections. • **Do** organize for sludge to be pumped out by a licensed contractor every 3 – 5 years. • **Do** have your grease trap and greywater pumpwell cleaned out regularly (grease trap 2 months – pumpwell 6 months). • **Do** install an outlet filter on your septic tank, inspect and clean to manufacturers recommendations. This will prevent the smaller solids from flowing out and clogging trenches and beds. • **Do** practice water conservation by installing flow restrictors to all fixtures and dual flush toilet cisterns. Wash laundry and use dishwasher in stages over several days to avoid flooding the system. Have leaky taps repaired promptly. • **Do** use sink strainers and wipe grease and excess food off plates and cooking utensils before washing up. • **Do** use detergents that are labeled low in phosphates, nitrates and sodium and use septic friendly biodegradable products such as toilet paper that disintegrates easily and washing soda for cleaning toilets, baths and basins. • **Do** keep the grass well mown in the land application area. • **Do** keep an area free of obstructions so that a replacement system can be installed should the existing become unusable.	• **Don't** flush or allow undesirable matter to enter the system that may cause pump damage or clog trenches and beds (coffee grounds, dental floss, disposable nappies, kitty litter, gauze bandages, sanitary napkins, tampons, condoms, cigarette butts, fats and grease). • **Don't** flush or allow harsh chemicals to enter the system which will harm the living organisms in the septic tank or cause health and environmental problems when irrigated from a pumpwell (paints, varnishes, thinners, photographic solutions, disinfectants, antiseptics, some detergents, and some medications). • **Don't** install a garbage grinder. • **Don't** concrete, pave or build over your septic tank, pump well or grease trap. This will inhibit the access required for maintenance purposes. • **Don't** cover the land application area with hard surfaces such as concrete or asphalt. Grass is the best cover, because it will prevent erosion and remove excess moisture. • **Don't** allow stock or animals to enter the land application area. • **Don't** allow children to play in the land application area.

• **Do** periodically move your greywater sprinkler so as to utilise a larger effluent disposal area in lieu of saturating a concentrated area and possibly causing run off to adjacent properties and stormwater channels. • **Do** be aware that if you are on regular prescribed medications, this can affect the performance of a septic tank. If concerned seek advice from an on-site sewerage facility service agent. 	• **Don't** plant trees or shrubbery in the trench / bed area, because roots will get in and clog the trenches. They will also prevent sun and wind from taking up excess moisture. Certain trees and shrubs may be planted specific distances away and they may help remove excess moisture (see **Types of Land Application Systems**). • **Don't** allow roof water, surface water or seepage to enter any part of the system. You may need to install surface water diversion mounds and drains uphill of the disposal area. In some cases ground water seepage may need to be diverted by installing sub surface cut off drains above and around the disposal area. • **Don't** irrigate fruit and vegetable crops with greywater, it is untreated primary effluent.