

SEPTIC TIMES

CAPTAIN'S LOG

www.effluent.co.nz

ISSUE 4

Water water everywhere...

Effluent is the **wastewater** we dispose of from our homes, offices and industry. It comes from toilets, sinks, showers, washing machines and industrial processes.

Household effluent can be divided into two sub-classes: black water and grey water.

Black water is effluent from toilets. It contains human waste and can be a public health risk if not treated properly. In towns and cities it is treated at a Waste Water Treatment Plant. On rural properties it is treated through an "on-site" treatment system - in most cases a Septic Tank and Effluent Field. Black water is the effluent discharged through the outlet of the septic tank into the effluent field as new effluent is introduced to the tank.

Grey water, although a lesser health risk because it does not contain human waste, is still contaminated with micro-organisms and requires treatment. Grey water is the effluent from the kitchen and bathroom sinks, baths, showers and laundry. Treatment on rural properties can be via the septic system or better an independent system such as a soak-hole.

Stormwater IS NOT effluent. It is the rainwater and overland run-off that flows to drains and soak holes and from there to the nearest stream, lake, pond or coastline. Stormwater that mixes with effluent, places extra loading on treatment systems and can be the cause of major problems.

Old Wives Tale a Load of Poo!

Throwing a dead possum or the neighbours cat down the septic tank places a heavy load on your septic system – it does not sustain the bacteria nor add bacteria, per se, to assist in the breakdown of bio-solids (poos and paper). The stool, made up of digested food, consists largely of bacteria originating in the intestine and these same bacteria continue the process in the tank. Any dead flesh/vegetation added to the tank requires exceptionally higher counts of bacteria to effect decomposition thereby placing the heavy load on your septic system. Waste-masters have the same effect also contributing large quantities of solids to the tank.



THE FINGER TEST

Toilet tissue suppliers add more strength to single-ply tissue to avoid failure of the all important "finger test". By default, users of 1-ply compensate by using more tissue, either folding or bunching great big wads. When combined with the stronger tissue, this can contribute to a "paper maché" effect and poor breakdown of solids within a septic tank making 2 or more-ply tissue the preferred choice.

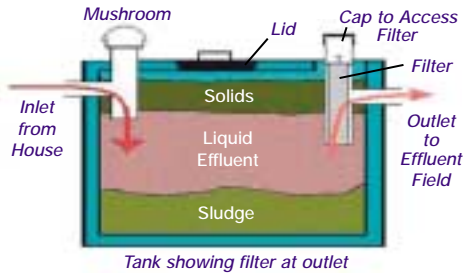
An advertisement for Effluent Services. It features a cartoon character of a man in a white lab coat and blue pants, holding a shovel. The text includes "SEPTIC TANK SPECIALISTS", "0800 EFFLUENT", "0800 333 583", "WAIKATO-WIDE", "Effluent Services", and "www.affluent.co.nz". There is a "24/7" logo in a red circle. At the bottom, it says "RAISING THE STANDARD".

An advertisement for Microbial Catalyst. It features a green oval with the text "Microbial Catalyst" and a small illustration of a factory. The text includes "Blocked soakage lines? Sluggish effluent fields? Formula-1 Microbial Catalyst will clear your soakage lines of organic solids and save you thousands of dollars on new line installations...". At the bottom, it says "Effluent Treatment Solutions Ltd. PO Box 27-419 Wellington" and "Order: Ph. 0800 365 227 www.affluent-treatment.co.nz".

SETTING THE STANDARD

How a Septic Tank works: Part 4 - The Filter

The Filter is located at the end of the tank fitted into the outlet pipe that feeds the effluent field.



Its purpose is to retain the suspended solids in the tank and prevent solids from clogging the effluent pipe and field.

The holes/gaps in the filter vary in size depending upon the brand and can be as small as 75microns. Much greater filtering is then achieved by a layer of scum that is built up over the filter by the bacteria. The filter requires regular cleaning (yearly is normally sufficient) to avoid blockages.

Filters can be simply retro-fitted to older tanks (by drainlayer/plumber) at minimal cost and are a good investment considering the cost of replacing an effluent line.

It is good to remember; if the tank has not been serviced for a couple of years with the filter not having been cleaned - have the tank emptied first before removing the filter to avoid any solid matter from escaping down the outlet.



Tank of the month

If you're a Real Estate Agent with the same name as a movie star - some people will believe every word that comes out of your mouth..

This story is about a lucky family (townies) who discovered the home of their dreams and proceeded down the path of talking to the agent about the property. One of the foremost questions on 'His' mind was "had the Septic Tank been cleaned?"

This guy was astute (actually, he had just read about it a month earlier in the Septic Times) but, credit where credit is due, he did ask the question. Sadly, he was not so astute as to obtain the evidence when the agent said it had been cleaned recently and he need not worry about it for another twenty (20) years (huh?).

Everything else went well and the contract was signed (with no more thought for the septic system).

The move went well, the children settled in and Mum and Dad were happy at last.

That lasted all of three weeks when one lovely summer morning the oldest child noticed some "stuff" flowing over the lawn below the kitchen window. "Dem der's not 'stuff'" said the younger sibling. "Dem der is poos!"

(Right now you're trying to work out who that Real Estate Agent is - am I right?)

Effluent Services arrived to discover a tank full of sludge and a completely blocked effluent line. What was particularly bad about this tank (that hadn't been cleaned for many, many years) was that it had been pushing sludge out the effluent line as fast as the new family was filling the septic tank and now, the new owners were in for the cost of a new effluent field.

(By the way, there is a new product on the market called "Formula 1" from Effluent Treatment Solutions Ltd. that is working wonders unblocking clogged effluent lines. See advert on front page or call us to place an order).

And of course – there is a moral to this story: if you are purchasing a property - request a report on the effluent system from a reputable effluent disposal company detailing recent cleanings and outlining the condition of the tank and effluent field where possible.

Oh, and DON'T rely on the word of a sales agent - after-all, they are not working for you - are they now?

To trust is good, to check is even better - Karl Marx.

TIME TO CLEAN YOUR TANK WHEN...

- you detect a foul odour around the tank;
- there is sewage coming out the mushroom or gully trap;
- the toilet/shower/sink is not flowing away as quickly as it should;
- you are selling your property;
- you've just bought a property;

The scoop on Poop

A by-product of broken down (digested) blood cells is what gives poop a lot of its colour. What remains of the digested haemoglobin is called biliverdin, which is converted into bilirubin and excreted. The colours of these molecules are due to their very complex structures, which contain rings of carbon and nitrogen atoms.

A build up of bilirubin can be the cause of jaundice in some people.

POO FOR THOUGHT!

Corn is a bit like a yard-stick. You can measure how sick you are by how long it takes to make it's way through and out again - Anon Pooh.

Déjà Pooh

The overwhelming response to the last issues' article on 'emptying tanks through the mushroom' has proved to be a real eye-opener for many folks. As a result of that article, a large component of the last 3 months work has been cleaning out tanks previously cleaned through the mushroom or not cleaned at all but claiming to have been cleaned. This truly is a sad indictment on our industry.



Kiwi Soft

New Zealand's No.1 Toilet Tissue

*Recommended by Effluent Services
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If we haven't got it, we'll endeavour to get it

WHAT THE ...?



CAVEAT EMPTOR

When purchasing a property, avoid costly repairs and maintenance to your new septic system by adding the following clause to your 'Sale & Purchase' agreement:

"This agreement is conditional upon the vendor obtaining an Septic System Report from a reputable effluent disposal company, detailing recent cleanings and outlining the condition of the tank and effluent field where possible."

A good solicitor will be able to assist!

POST PURCHASE!

If you've just purchased – get your tank cleaned now! It can save you a lot of expense and bother when things go wrong.

EnviroWaste
Complete Waste Solutions

**Wheelie Bins • Maxi Skips • Frontload Bins
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Back to Basics

Septic tank/soil absorption system - the most common system.

The most common form of onsite wastewater treatment is a septic tank/soil absorption system. In this system, wastewater flows from the household sewer into an underground septic tank.

- There the waste components separate - the heavier solids (sludge) settle to the bottom, and the grease and fatty solids (scum) float to the top.

- Anaerobic bacteria partially decompose and liquefy the solids.

- The size of the tank is normally dictated by the number of bedrooms in the home which in turn relates to the number of people living in the home. The tank size should preferably allow 48hrs for solids to settle from the effluent in the tank.

- Some tanks have baffles to provide maximum retention of solids, prevent inlet and outlet clogging, and prevent rapid flow of wastewater through the tank.

- The liquid portion (effluent) flows through an outlet (and possibly through a filter) to the soil absorption/effluent field.

- The most common absorption field is a trench or series of trenches, each containing a distribution pipe in gravel or rock. In certain circumstances, such as peat, surface or mound systems may be required.

- The effluent leaks out through holes in the pipe then down through the drain field gravel or rock and into the soil.

- An aerobic zone in the soil filters out remaining minute solids and causes pathogens (disease-producing micro-organisms) to die off. Dissolved substances slowly percolate down to water.

- Depending on conditions, up to 50% of the tank volume can be taken up by solids after 2 years, reducing the required retention/settling time by half. Cleaning the tank of solids regularly reduces the chance of solids from exiting the tank into the effluent field.

- A properly designed, installed and maintained septic system can effectively treat wastewater for many trouble-free years.

Clean poop

The kind where you poop it out. It's there in the toilet, but there is nothing on the paper!

Humes Concrete Septic Tanks

- 5000 litre capacity multi-chambered circular concrete septic tank.
- Suitable for households of up to 8 people.
- Efficient separation of solids and liquids.
- Smaller sizes available.

Cost effective solutions built to last - www.humes.co.nz

Hamilton Sales Centre 0800 502 112

QUOTABLE QUOTE

He who thinks he is leading, and turns around to find no one following, is merely taking a walk.

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Effluent Services
www.effluentservices.co.nz

RAISING THE STANDARD

WINNER

FREE TANK CLEAN FOR THIS ISSUE:
D & B Pronger
Brunskill Rd, TE MIRO

Contact Effluent Services for your next tank clean and you go in the draw for a free tank clean

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