

WEBSITE UPGRADE:

The Dave Miller Wastewater Website at www.davemiller.co.nz has been upgraded with enlarged sections on; 'News Items', "About Dave". "Services" and "Sample Sites".

The sample sites contain examples of sewage treatment systems Dave has designed to overcome particular problems. As a result of his expertise Dave is often in demand by Regional and District Councils, Engineers and Architects to come up with practical solutions to solve some very complex wastewater problems.

Dave's site has been receiving up to 60 visits a day and he is very much in demand as a recognised expert in the wastewater industry.

FEASIBILITY REPORTS:

If you are building in the country and need an on-site wastewater system for one house or a subdivision of 100 houses, there are advantages of getting Dave to prepare a report on the sewage treatment options available together with cost estimates.

These reports are proving very popular with architects, engineers and developers who can then advise their clients on the most effective, cost efficient sewage treatment options available.

As Dave does not have any financial interest in any wastewater products, tank manufacturing installation or associated businesses he can act solely in your, and your clients, interests to recommend the most cost efficient system for their site.

www.davemiller.co.nz

TOMORROW'S SOLUTIONS TODAY™

NEWBURY COMMUNITY AND SCHOOL HALL RELOCATION.



Large Septic and Peak Load Storage Tank situated behind hall.

With a number of community halls being underutilised, and rural schools needing school halls, there is a growing trend to relocate these halls and incorporate them into the local school.

Dave specialises in designing efficient peak-load storage sewage systems to effectively treat the wastewater from school halls.

In recognition of his groundbreaking work in this area Dave was invited to address the combined NZ Water and Waste and NZ Land Treatment Collective annual meeting on this topic, attended by 140 professionals, Council and industry representatives.



Filtered Effluent Timer Dosed into LPED Trenches in narrow garden areas after crowds have gone home. Ideal for Marae's etc.

ECO-ARCHITECTURE:

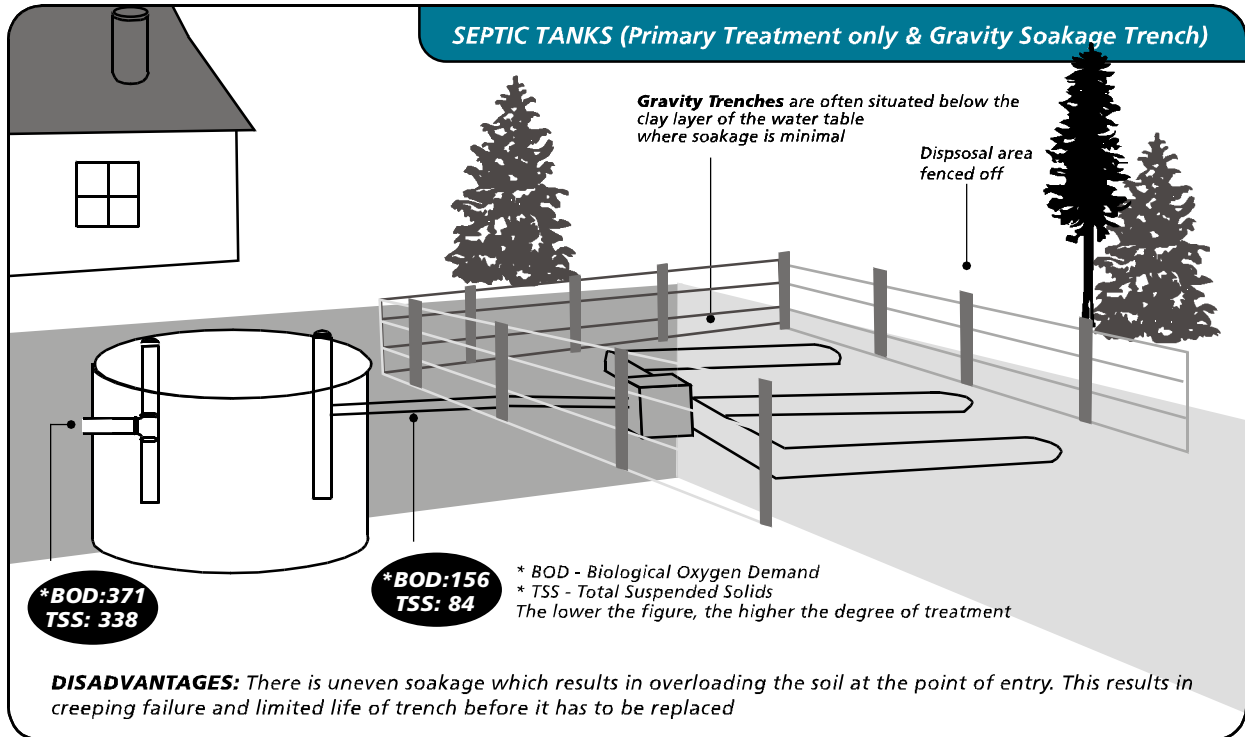
AN EXCELLENT EXAMPLE OF FORWARD PLANNING


“One day we might collectively follow the English example of the 300 year old chapel which had roof timbers that needed replacing. Planted in the chapel grounds were the oak trees planted by the builders who knew that in 300 years time the roof timbers would need replacing...”

(Quote from Graeme North – Architect, published in EcoLiving NZ, issue 10, 2002.)

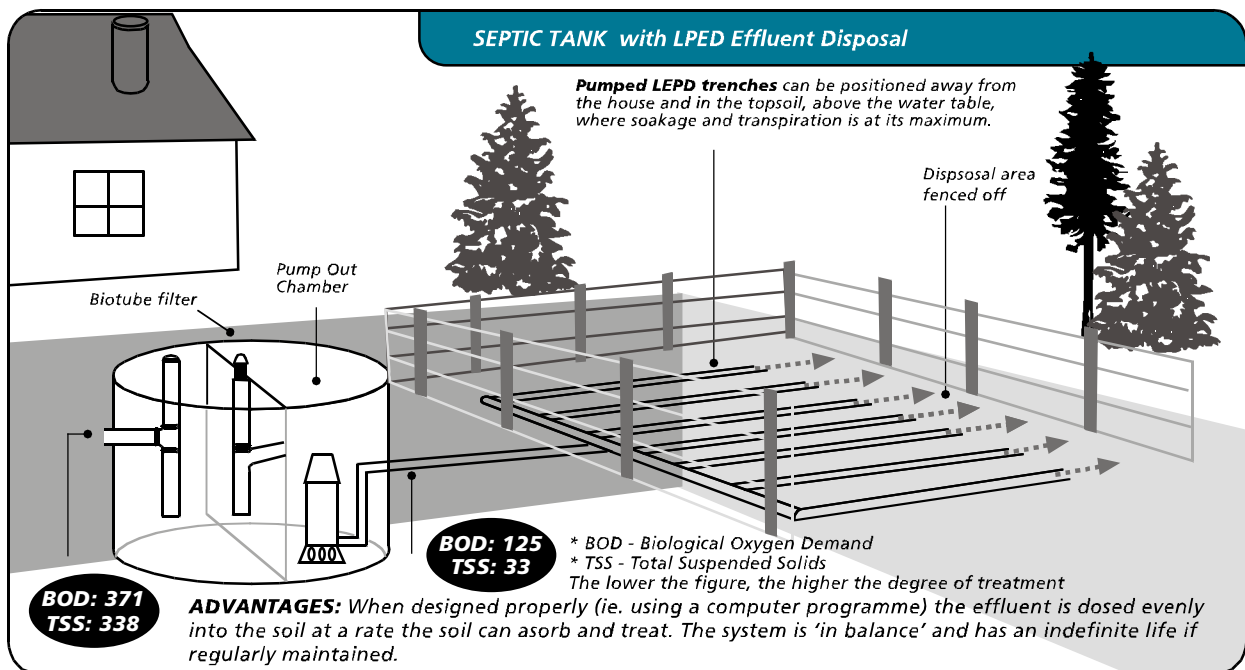
SEPTIC TANKS versus SEWAGE TREATMENT SYSTEMS PROS AND CONS


SEPTIC TANK - Older System



RATING  **LOST LAND** Upto 400m² Septic tanks only provide partial (primary) treatment and rely on the soil in the disposal area to provide the secondary treatment. As the disposal area is acting as the secondary sewage treatment system it should be fenced off from stock and is effectively lost for other use.

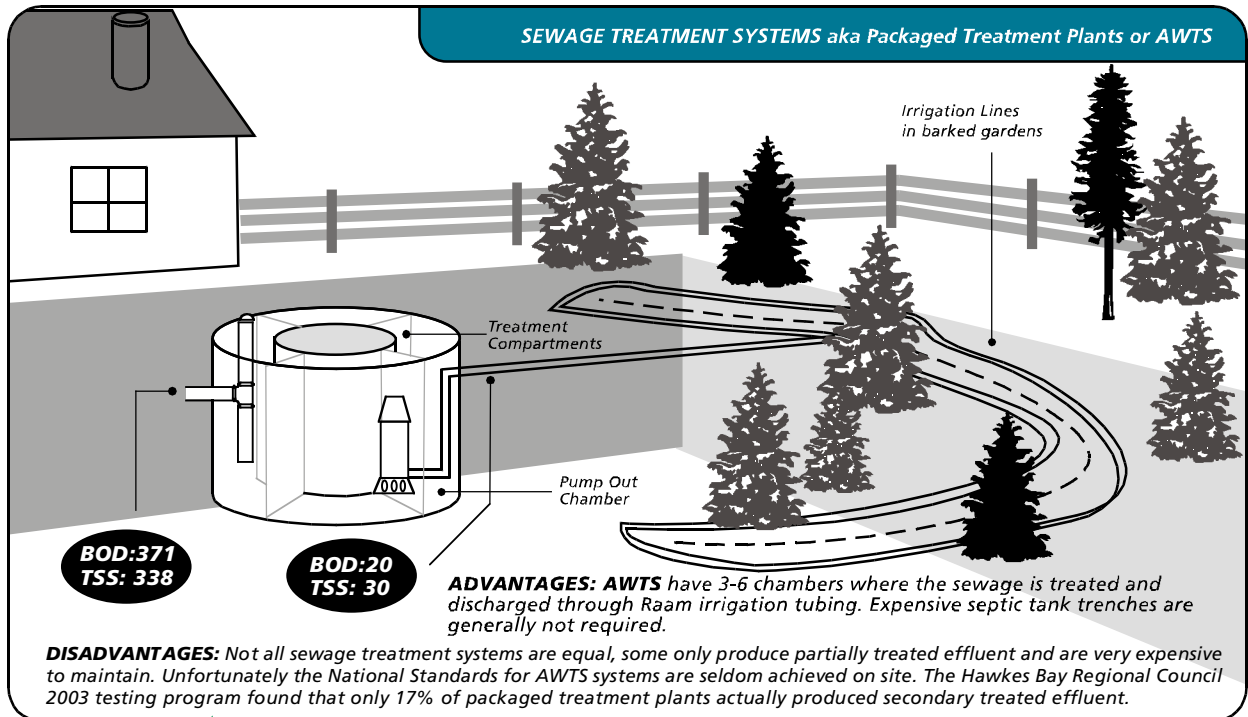
SEPTIC TANK - With Pump



RATING  **LOST LAND** Upto 400m² As the land is still being used to treat the effluent it should be fenced off from stock and designated as an effluent disposal area. LEPD is better than gravity disposal but not as good as a sewage treatment system.

SEPTIC TANKS versus SEWAGE TREATMENT SYSTEMS PROS AND CONS

STANDARD SEWAGE TREATMENT SYSTEM

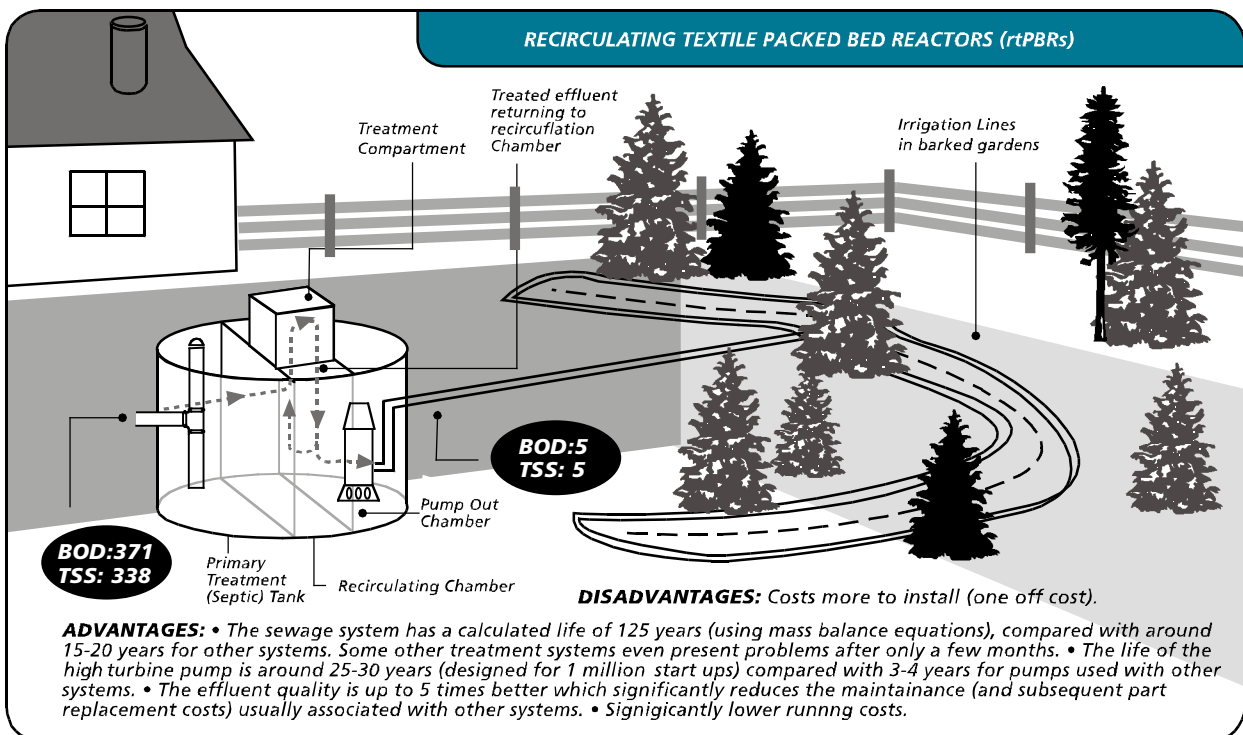


RATING



Both Primary and Secondary treatment are carried out in the treatment plant with the treated effluent irrigated into barked gardens which can be within the house fenced area. This area is not lost although, depending on the quality of the treatment system, land use can still be restricted.

ADVANCED SEWAGE TREATMENT SYSTEM



RATING



Treated effluent from a rtPBR can be further treated and piped back into the house to flush the toilets. This can significantly lower the area of land required for effluent disposal. Packed Bed Reactors are so reliable they are being used in New Zealand to treat the sewage from whole communities, especially in sensitive environmental areas like beach settlements and schools.

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Hawke's Bay to offer affordable, high-quality education. The schools were previously affordable (state management and council) some serious questions from our signal we have from our is to not accept an across-the-board Wood did not believe cross-section for programmes would be a by the chances are very slim. It is a merged institute and individual are managed very efficiently," he Executive Bruce Martin said it was ly to be "pedantic" about what the he might be. tantly, from EIT's point of view we s Jones takes a very measured approach soring. Our fees have always been very itive. e council was aware of all the issues and ed to get the fees right, he said. was a "real balancing act" of ability for students with quality and of visibility. ink 12 ayed 12 believe sortion



Save for
the Bay



Win a
candlelit
dinner ...

Hawke's Bay Today wants your thoughts on what regional project should benefit from Contact Energy's funding offer. Send us your suggestions and be in to win a spot prize of a candlelit dinner for two and a night's accommodation at Napier's fashionable County Hotel.

NEW-AGE SEWAGE: Environmental engineer Dave Miller with a bio-tube filter, part of the new sewage system at Hukarere Maori Girls College, Esk Valley.

HBTODAY PICTURE: ANDREW LABETT

Top-shelf sewage system

MARTY SHARPE

The Ferrari equivalent of sewage treatment systems has arrived in Hawke's Bay.

A state-of-the-art biological packed-bed filter has been installed at Hukarere Maori Girls' College in the Esk Valley by Palmerston North-based environmental engineer Dave Miller.

He was contracted by the college to design a system that would meet the high standards of Maori cultural concerns.

Mr Miller said that apart from treating effluent four to five times better than conventional systems, the new system had an estimated life of 125 years, compared to 15 to 20 years for other systems.

The treated effluent is of such high quality that it will be used to trickle-irrigate the school grounds without any health risk to the pupils, Mr Miller said.

The system was also available for domestic use and could overcome the treatment problems rural home owners were experiencing with sewage systems.

Time running out for free flu jabs

Please a utensil, rinse our hands? Lots, ah!

STOP PRESS: If you don't want sewage problems, don't buy a cheap sewage treatment system. That was my conclusion at a recent meeting where the Hawke's Bay Regional Council (HBRC) released its test data on sewage systems.

The HBRC has operated a monitoring programme since 2001 which showed that only 17% of sewage treatment systems tested were actually producing secondary treated sewage. *Secondary treated effluent is defined in AS/NZS 1547:2000 (page 15) as being equal or better than 20 g/m³ biological oxygen demand (BOD) and 30 g/m³ suspended solids (TSS).*

BOD levels from sewage treatment systems as high as 380 g/m³ and TSS levels of 122 g/m³ were recorded. The **average** effluent quality of the failed systems was 5 times the allowable level and the effluent quality from many systems was no better than that from a septic tank.

It would appear that some treatment plant manufacturers can not be relied upon to accurately report the treated effluent quality their systems will produce and that the cheaper sewage treatment systems are producing the worst results. Councils need to exercise caution and independently verify system performance claims before granting approval.

DAVE MILLER
Environmental Engineer

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