

## 2-17-12 What Exactly Is A Tight Tank?

If you have lived and grown up in an area with town sewerage, you might not even know what an onsite septic system is. When you buy that much coveted house in the country, you might find yourself being quite shocked by the idea that there is something in your yard, under the ground, that you own, connected to your plumbing and it requires some level of maintenance, such as the so-called pumping out of the septic tank.

And then, there is a whole other level of this experience when people discover that they don't have a septic system. Instead, they have a holding tank, or a tight tank. As the Encyclopedia Britannica tell us: "Tight: so close in structure as to prevent passage or escape, as of liquid." So, in this case, when you wash your hands, brush your teeth or flush the toilet, that water arrives in an underground tank and that's it. The liquid goes nowhere else. When it is almost full, an alarm goes off, you have a minor heart attack and then you call a septage hauling company to empty it out, and then you fill it up again.

When a home owner with a complete, working septic system calls that same company for their septic tank, the work of pumping it out, accomplishes something entirely different. That home owner will have her septic tank cleaned of sludge and solids, allowing the tank to continue to function as a pre-treatment area, before the effluent continues on to a leaching area, where the somewhat treated effluent will then continue to be treated as it trickles down through the soil.

The difference between the two phone calls to the same company is vast and of great importance to the home owner and the environment. Depending on the number of people and the use of the system, the cleaning of the septic tank might happen every one to three years. The owner of the tight tank needs that tank to be completely emptied every month or so, depending on how well the owners can conserve their use of water.

The owners of a septic system have the responsibility of respecting the needs of that living, breathing underground system that is very much like their own gut. Use an antibiotic, and you might want to eat yogurt, as the antibiotic altered the Ph of your gut. Use antibiotic soap at every sink in your house and you will kill the "good" bacteria of your septic system. Wash your paint brushes at your sink and you will clog the whole system, even with water soluble paints. As soon as that paint has the opportunity to separate from the water, it will form a film of plastic; deadly to the needs of a leaching system. The septic tank does allow for some treatment of that effluent, if you have not interfered too greatly with its capacity to do so. The septic tank has anaerobic (without oxygen) bacteria eating up some of the bad bacteria. Also, the septic tank allows the effluent to settle into three layers, with heavy sludge settling to the bottom, fatty scum rising to the top and the more watery effluent settling into the center, where it can flow out to your distribution box and then into the leaching area, where the effluent slowly percolates down

through the soil, being treated by soil bacteria and electrical charges in the soil particles, making it safe to join the ground water.

The owner of the tight tank only worries about consumption of water use. The use of low water-use appliances, shower heads and toilets is critical to the successful use of a tight tank. If you have more than one bathroom, consider having at least one composting toilet. These toilets use no water at all. They are used successfully at many tourist convenience stops and sensitive environments, such as our National Sea Shores.

Our Massachusetts Department of Environmental Protection does not allow the use of a tight tank for new construction or if a traditional onsite septic system can be designed for the site. Although it is, admittedly, a last resort of sorts, the tight tank is a solution for first time buyers, individuals and small families. For a successful experience, it is critical for the buyers to fully understand the circumstance, be committed to conserving water and include the cost of pumping out the tank as part of their mortgage.

Wondering what it costs to own and maintain a tight tank? Tune in next week and I'll give some examples. Then you can make an informed choice if this is for you.

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