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CLEAR & PRESENT

THE HIDDEN DANGER ON LONG ISLAND by Jim Von Meier

If you live on Long Island, chances are you've heard of cesspools, but very few people know why they have them and the danger they pose.

In the old days, cesspools were a 10 to 30 feet pit dug in the yard with cinder blocks used to shore up the side-walls. Then a concrete or wooden top is put over the top and covered with topsoil. As wastewater is flushed down the drain, it enters the "pit" and migrates down through the bottom and out through the sides.

The use of cesspools exploded in the 1950's as improvements in transportation allowed people to move out of the cities to suburban areas and commute to work. But these areas were developing so fast, sewage treatment facilities could not keep pace. Rather than wait, developers began using cesspools as a temporary solution with the belief that a treatment facility would be available to these homeowners in 5 to 7 years. And they loved them because they were cheap, easy and took up little room (allowing them to put more homes in an area).

By the 1970's, two things were becoming glaringly apparent; first those sewage treatment facilities were far behind schedule and second, there was obviously a design flaw with these systems because where they were used, the quality of nearby surface waters was significantly declining. It didn't take long to figure out the problem.

In most areas of the country, you can dig down 5 to 20 feet and hit a shallow, seasonal water table, and these are the waters that run into our lakes, rivers, streams, wetlands and oceans. What that means is if you had a 20 foot deep cesspool in an area with a 15 foot water table, you were flushing your toilet into nearby bodies of water.

Wastewater contains parasites and viruses (an obvious health risk), but its also high in nutrients. When introduced into surface waters, it not only spreads disease, it also promotes the growth of algae and plant life. Realizing that something had to be done, universities and water quality agencies began tracking the problem.

Researchers knew that certain types of soils were excellent mechanical filters, but as information was gathered and theories explored, it was found that the naturally occurring bacteria in the top soils performed another valuable service. They consumed the parasites and viruses present in sewage. This, along with the electrostatic processes that takes place in soils, they found that if you used a tank to separate the solids, first, and utilized shallow trenches, beds, pits (the shallower in soil, the more oxygen there is which allows more bacterial activity and more evaporation) to disperse the the liquid just under the surface, these new designs could treat wastewater better than a multimillion dollar treatment facility.

Unfortunately, not everyone felt this information applied to them. Many of the people who controlled the regulations for states/counties/cities, were operating under the illusion that treatment facilities were just a few years away and saw no reason to make this a priority. Many also felt that development was more critical to the future than dealing with sewage issues, and mandating more restrictive regulations would stifle growth. And in their defense, often when they did propose updating septic regulations, homeowners would fight them, reasoning, "my toilet flushes fine. Why should I spend money upgrading my cesspool when it works?"

However, by the 1990's, most areas of the country began adopting some of these techniques, yet no one bothered to address one critical point; the danger of these cesspools already in the

ground, collapsing.

Contrary to popular opinion, concrete is not permanent, particularly in a warm, wet caustic environment. After 20 years, it gets soft and it's not a matter of "if" that cesspool is going to cave in, it's "when" that cesspool is going to cave in. Although record keeping on cesspools is spotty, at best, today there are millions of these structures in cities, suburbs and rural areas all over the country. On Long Island, there could be more than 300,000 properties with one or more of these structures (often when a cesspool would fail, a second or third one would be dug and seldom those old ones filled in...even when the house was hooked up to city sewers, they were often ignored.

A better solution is to first find out if you have an old cesspool on your property. It is pretty simple to do a history on the house to find out if it has been on city sewer from the beginning. However, if the house was built in 1952 but didn't get city sewer until 1973, then chances are you have one. It may have been filled in when the house was converted and maybe not. Your best bet would be to call a certified septic contractor to search your property. They usually know where any cesspools might be located and it is simple for them to check if they've been filled in. If they do need filling, it can run from \$500 to \$1500 or more as it takes more than buying bags of sand and dumping them in. If your cesspool is still in use, you need to get it taken care of ASAP and that means getting it/them filled in and a proper system installed. Don't put it off because you are only putting your and your neighbors at risk (if your neighbor or one of their kids fall into your cesspool, you're guaranteed a major lawsuit). But a few other things to factor into it are the fact that an old cesspool could be polluting your environment and no sane person wants to pollute if they can help it.

Also, in the past, health departments were willing to grandfather older systems but that attitude is changing. Today, in some states, you cannot sell your house, put on a new roof or even build a deck if the system does not meet the requirements that are currently on the books. Eventually, this will be the case across the country (should have been done 30 years ago) and you don't want to be taken by surprise because then, things really get expensive. Don't put it off saying, "it will never happen to me." Ask the families of the victims that have died in these cesspools and they will tell you a different story.

Here's a little tip:

If you have a problem, chances are your neighbors will be dealing with it as well. Talk to them about forming a group and hiring a contractor together and getting a group discount.



Jim vonMeier is an environmental specialist with certifications from the University of Minnesota and the Minnesota Pollution Control Agency. He conducts community education programs around the country, writes articles, hosts a Q&A online column (www.septicprotector.com) and has appeared on numerous news programs as a safety and environmental expert on ABC, CBS, NBC, Fox and CNN.