
Home Wastewater Treatments

Rural homeowners on farms and acreage's accept the responsibility for home wastewater treatment as part of their independent living status. This does require planning, maintenance, upkeep, and construction. This column will attempt to address the two most common problems in this process, planning and maintenance.

Whether you are buying a home, building a new home or have lived there for years planning is a critical part of having a legal, functioning, non-polluting waste management system. I had a client question recently about potential pollution of a watershed lake by livestock and where one would go to file a complaint. The home located by the watershed lake was improving their septic system which had a tile line along the waters edge. The new septic tileline was going to be 15 feet back from the water's edge. Can livestock waste pollute water? Yes. Can a septic line at the waters edge or 15 feet back pollute water? What do you think?

In our area the soils are mostly silty clay loam soils. The soils are quite slow in water infiltration rate. That is why many septic system drain fields have failed and homeowners have opened the ends for discharge. This is not legal! Planning for enough drainfield for the home, with regard to family size, soil type, washing loads, garbage disposals, dish washers etc. is important. Many older farm homes do not have suitable septic system designs for modern conveniences. Many new homes and remodeling efforts are utilizing residential lagoons in place of septic fields to solve some of these problems. Sizing of these systems is just as important. Homeowners need to be aware of design trade-offs. An older couple recently was asking about how to keep the water level of their lagoon on target without over stressing their well. When the children are raised the water use for showers, laundry, and even flushes declines. This can mean a need to add water to the lagoon to maintain the proper depth. Some designs allow for the use of water from a home down spout to aid in keeping water levels on target.

On the maintenance side, the biggest problems with septic systems are caused by lack of pumping of septic tanks. Waiting 20 years, and pumping after sludge has flooded into the laterals will not help. Pumping frequency can vary with family size and use, but annual inspections are recommended and pumping at least every 5 years is a must in good maintenance. Hazardous materials like paints, pesticides, cleaning products, and medications are also a problem. Sometimes tree roots can be a concern.

Vegetation, color and water level are the keys to lagoon maintenance. Maintain good grass cover on the lagoon slopes and control shrubs, trees and weeds which slow down air movement across the lagoon surface. Lagoons should be a bright rich green color. Yellowish, tan, brown, red, gray, or black are not good colors. Lagoon operating depths should be 2 to 5 feet. Watch the monitoring stick and adjust levels as needed.

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