

## Septic System and Lagoon Maintenance

Rural homeowners on farms and acreage's accept the responsibility for home wastewater treatment as part of their independent living status. Whether you are buying a home, building a new home or have lived there for years maintenance is a critical part of having a legal, functioning, non-polluting waste management system.

In our area the soils are silty clay loam soils. These soil types 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 and should be remedied ASAP!

Some of the maintenance tips that will help septic system owners reduce system failures are:

- ➔ Have the septic tank pumped by a certified pumper at least once every three years. This will keep solids from moving out of the tank into lateral lines and reducing seepage rates.
- ➔ Control water use in the home. All waste water has to pass through the system. Seven minute showers produce one-half the waste water of fourteen minute showers and also save on water heating costs.
- ➔ Don't flush cigarettes (unless this is the final pack), diapers, paper toweling or other products which will increase the solids buildup dramatically.
- ➔ Use the garbage disposal, but don't overload the system with large batches of peels, rinds, husks, etc.
- ➔ Keep hazardous materials like paint, petroleum products, pesticides, medications, and unused cleaning products out of the system.

Make sure the drainfield area has a good grass cover. Divert water from roofs and other surface drainage areas away from the drainfield area. Do not add soil depth over the drainfield area. Avoid planting trees in the immediate drainfield area. Avoid uses this area for driveways or field roads. Properly designed drainfields today are going to be gravel or rock beds under half-moon concrete covers. This are a rather pricey alternative to a lagoon.

Using a wastewater lagoon rather than a septic tank and drainfield or rather than a drainfield is a good plan in our area. The key to good operation and maintenance is in the proper construction and design. Lagoon operating depths should be 2 to 5 feet. Watch the monitoring stick and adjust levels as needed. Making sure the contractor properly seals the bed of the lagoon with compacted clay or a bentonite liner. They should correctly install a marked depth gauge stick. This is vital to the proper management of the lagoon. Lagoons are built for the number of bedrooms in the home regardless if they are occupied. It is nice to have some method to add water to the lagoon from roofs or other sources other than the well. This will help with the initial filling and adding extra water to keep the proper depth when water use is low or if the well is marginal. 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.

There is an excellent website with information on design and maintenance of wastewater treatment systems. You can access it by going to the Gage County Extension website: [gage.unl.edu](http://gage.unl.edu), click on Water then on "Home, Lawn & Garden", or go directly to UNL Water website: [water.unl.edu](http://water.unl.edu)

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