### **Owner Maintenance, Care, and Operation Instructions**

The Wastewater Treatment Systems have been designed and built to provide long term, reliable, and cost efficient service. This treatment plant will operate with a minimal amount of attention; however, there are a few things you should know in order for your new system to maintain its biological stability and give you years of outstanding performance.

Your local regulating authorities and designers have sized your Aerobic Wastewater Treatment System for your home. This means you should try to maintain a certain amount of daily flow into the system.

	Size	Safe Zone
•	500 Gallons per day	350 – 500 Gallons per day
•	600 Gallons per day	450 - 600 Gallons per day
•	800 Gallons per Day	550 - 800 Gallons per day
•	1000 Gallons per Day	800 – 1000 Gallons per day
•	1500 Gallons per Day	1300 – 1500 Gallons per day

- You will need to monitor your frequency of washing clothes and dishes as this could complicate the treatment process if most of the wastewater from you house in graywater. Graywater does not contain enough organic material to help the treatment process. To avoid disrupting the biological stability of your system, try to spread your laundry and dishwashing over several days instead of doing it all in one or two days.
- Toilets are known to leak water at times from the seal in the tank, so it may be a good idea to test your toilets(s) occasionally. Place a few drops of food coloring or dye into your tank. Observe the bowl for a few moments. If you notice dye or coloring entering you bowl, your seal in the tank is leaking. You will need to replace the flapper in the tank. By performing this simple test, you not only reduce your water usage, but you also prevent diluting the needed bacteria from your system.

The Wastewater Treatment System is much like a living organism. It needs certain things to work and perform properly. Your system can treat most any type of household wastewater. This includes the waste/waters from showers and baths, clothes, and dishes, and toilets. However, as great as the system performs in treating common household sewage, it cannot treat everything flushed from the house. For a more descriptive list of items that the system cannot treat, se the list titled as "Items That Are Not Safe To Use In Your System"



### Items That Are Safe to Use in Your Septic System

Think of your system as a way for bacteria to live. This means anything that you use in your home could affect the performance of the system.

It is acceptable to use household cleaners as long as they are not over used. By following the directions on the labels, you should be fine with the amount of chemicals being introduced into the system.

Other than regular household sewage and minor use of cleaners, no other products should be introduced into the system.

## Items that are NOT Safe to use in Your Septic System

The proper operation of the septic system depends upon proper organic loading and the life of the aerobic bacteria inside the system.

- > Do not put strong disinfectants, bleaches, toilet cleaners or sanitizers, other than small amounts used in daily house cleaning and laundry, into the system (follow manufacturer's instructions). Do not use liquid fabric softeners.
- > Do not put chemicals that have high volumes of bacteria killing agents into your system. Do not put commercial, industrial, or chemical waste into your system.
- ➤ Do not allow any discharge, backwash, and/or exhaust from any type of water softener to enter the system. Do not allow surface water to pond around the system. Do not allow non-sewage water flows caused by rain or ground water infiltration, storm water infiltration, leakage from improperly maintained plumbing fixtures, excessive volumes of water, etc. to enter the system. Do not allow air conditioner condensation lines to discharge into septic sytem.
- > Do not put coffee grounds, shrimp shells, food waste or any level of cooking grease and/or oils into the system.
- > Do not allow pet shampoo or pet dip to flow into the system
- > Do not put solvents, paints, or paint thinners, drain cleaners, harsh detergents, heavy metals, or any other toxic materials into your system.
- ➤ Do not put disposable diapers, paper towels, tampons, sanitary napkins, condoms or any rubber/plastic products, large quantities of paper products, tobacco products (including cigarette filters), or similar items into the system. Do not put non-biodegradable items into your system.



- We strongly discourage the use of a food waste disposal. However, if you choose to use a garbage disposal, please limit its use.
- > Do not put chemicals that are designed to clean out drains or correct "septic tank" problems into your system.

Please be aware that some medications you may be taking, such as antibiotics, may upset the biological stability of the system.

## **Periodic Pumping and Cleaning**

Determination of the need for pumping can be made only by a trained service person by testing the tank's contents and/or effluent. The pumping should be done by a competent septic tank cleaning company. Your system should be cleaned every 5 to 7 years depending on your daily loading. You should expect to obtain one inch of sludge at the bottom of your system every year. If you use more water than what the system was designed to handle, you will have more build up in less time. This means you may need to have your system pumped and cleaned more frequently.

## **Your Responsibilities**

It is the sole responsibility of the owner to understand, observe, and follow any and all safety rules and requirements pertaining to the entire system in which includes the owner, their families, friends, or guests.

There are a few procedures that you will need to follow in order for you Wastewater Treatment System to work to its full potential. The procedures include but are not limited to:

- 1. Make sure the system is not exposed to vehicular traffic. This could cause damage to the tank(s) or disposal field.
- 2. The system will not produce water that is safe for human consumption. Always be sure children are not allowed to play on or around any part of the system. Do not allow pets or livestock around the system or any of its components.
- 3. Do not allow non-biodegradable materials (i.e. plastics, coffee grounds, etc.), chemicals, solvents, grease, oil, paints or any other type of non-domestic wastewater to enter the System.

# **Detecting Malfunctions or Problems**

If you notice surfacing of effluent or backups into house, call an installer or service provider for assistance. If you experience odor problems or notice the system is not functioning properly, call your installer or service provider.



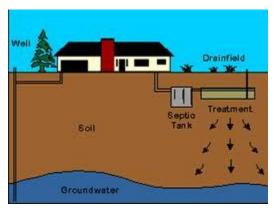


Image of how a gravity system works.

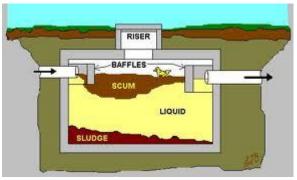
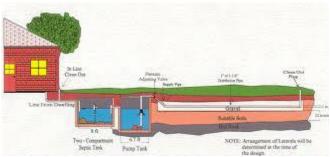


Image of how a tank a septic tank works.



Low pressure dosing design





Image of common methods of drain fields.

