

MAINTAINING YOUR ONSITE WASTEWATER DRIP SYSTEM

DO

- Do** obtain necessary permits from Greene County Resource Management Department, (417-868-4015), or the appropriate local agency, before making any repairs.
- Do** use professional certified installers when needed.
- Do** have your drip system maintained bi-annually by a professional.
- Do** have your septic tank pumped out as needed.
- Do** keep your septic tank and pump chamber accessible for inspections and pumping. Install risers if necessary.
- Do** call a professional whenever the alarm sounds or you observe effluent surfacing over the lateral lines.
- Do** keep a detailed record of repairs, pumpings, inspections, permits issued, and other maintenance activities.
- Do** conserve water to avoid overloading the system. Repair any leaky faucets or toilets.
- Do** divert other sources of water, like roof drains, house footing drains, and sump pumps away from the drip system.
- Do** establish and maintain a good stand of grass over the lateral field.

DON'T

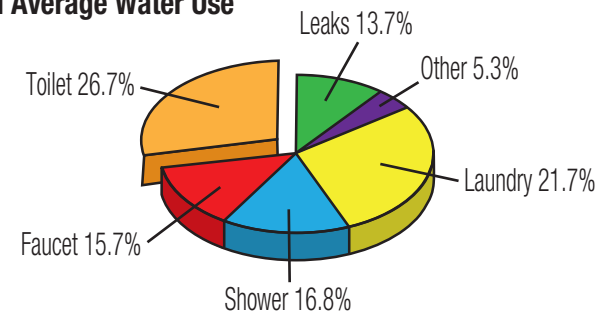
- Don't** go down into a septic tank or pump chamber.
- Don't** allow anyone to drive or park over any part of the system.
- Don't** plant anything over or near the lateral fields except grass. Even roots from nearby trees or shrubs may clog and damage the drain lines.
- Don't** dig in your lateral field or build anything over it, and don't cover the lateral field with a hard surface such as concrete or asphalt.
- Don't** pour into drains: septic tank additives, chemical drain openers, paint, varnishes, thinners, waste oil, photographic solutions, pesticides, pharmaceuticals, and other organic chemicals. Minimize garbage disposal use.
- Don't** make or allow repairs to your system without obtaining the necessary permits.
- Don't** use your toilet for trash disposal.
- Don't** allow backwash from your home water softener to enter the septic system.
- Don't** ignore or silence an alarm. Call your maintenance provider or a certified installer immediately.

IF YOU HAVE PROBLEMS

Even with the best maintenance some systems will eventually have problems. Call the Greene County Resource Management Department 868-4147 for advice on ways to address these problems.

One of the best things you can do for your drip system is to reduce the amount of water flowing into it. This is especially important if a drip system was required because of your soil limitations.

National Average Water Use

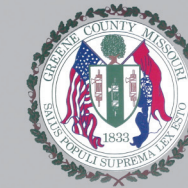


Source: American Water Works Association Research Foundation. "Residential End Users of Water" 1997.

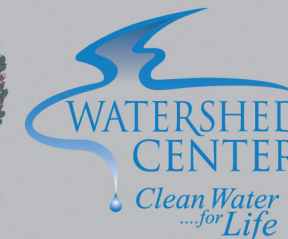
A typical family of four uses 250-300 gallons of water every day. You can reduce this figure with simple conservation measures.

- Repair leaking faucets or running toilets.
- Use clothes and dish washers only when full.
- Reduce length of showers and lower water level in baths.
- Turn off unneeded water when washing hands and brushing teeth.
- Install water saver fittings in faucets and shower heads.
- Install a low-flush toilet or toilet dam.
- Use water efficient appliances.
- Use front loading/high efficiency washing machine

MAINTAINING YOUR ONSITE WASTEWATER DRIP SYSTEM



Greene County
Resource
Management



WHY A PRETREATMENT TO DRIP SYSTEM FOR YOUR PROPERTY?

WHY MAINTAIN YOUR SYSTEM

The first and most important reason to maintain your system is to protect the health of your family, your community and the environment. Untreated wastewater from a failing system can contaminate nearby wells, groundwater, and drinking water sources.

Significant health risks include hepatitis A, diarrhea, salmonella, giardiasis, tetanus, hookworm, cholera, dysentery, typhoid fever, and staphylococcal infections.

The second reason is money. Failing systems are expensive to repair or replace, and poor maintenance is a common cause of premature system failure. Routine preventive maintenance costs very little compared to a system replacement. For example, a system inspection and maintenance, including pumping the tanks, costs from \$150-\$300. In contrast, replacing a failing system with a new one typically costs from \$15,000 to \$30,000, assuming you have enough property to install the replacement system. In addition, property values may drop when a system fails.

The third reason is lack of alternatives. A drip system was specified for your building location because of some limiting factor(s) in the soil or space constraints. You need to care for the system to keep it operating because there may not be any other legal and healthy ways to handle sewage at your location.

The fourth reason is to keep household toilets flushing. Unlike a conventional septic system that continues to operate at a less effective level, an impaired or unmaintained drip system will stop functioning entirely. You may not be able to flush toilets and drains may back up if the system is not properly maintained.

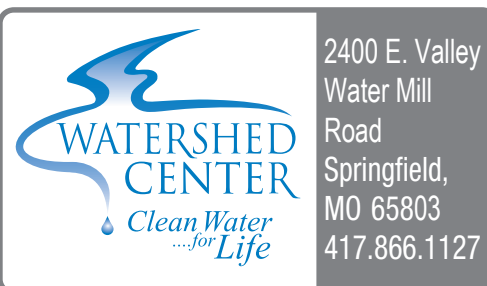


Many building sites are unsuitable for conventional septic tank systems because of a high water table, shallow depth to rock, heavy clay content, or restrictive layers in the soil. Other factors include available space and minimum separation distances from items including sinkholes and wells.

A properly maintained drip system can overcome these limitations because:

1. It permits drip lines to be placed at a shallow depth, in the best available soil.
2. It can distribute the effluent uniformly throughout the drain field at a slow rate.
3. It allows the soil to rest between dosing cycles.
4. It requires the effluent to be treated before it enters the soil.
5. It allows a smaller absorption field or footprint.

These factors help maintain aerobic (oxygen rich) conditions in the soil for adequate treatment of the effluent before it reaches ground or surface waters.

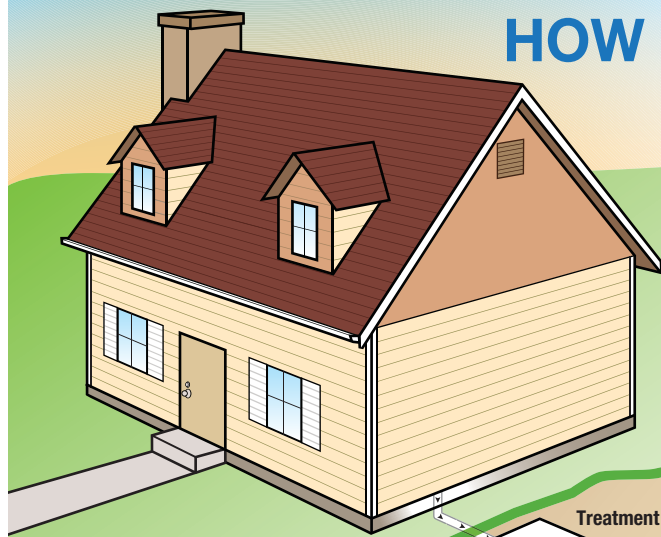


Portions of the information contained in this fact sheet obtained through the National Small Flows Clearinghouse, West Virginia University, Morgantown, WV 265206-6064

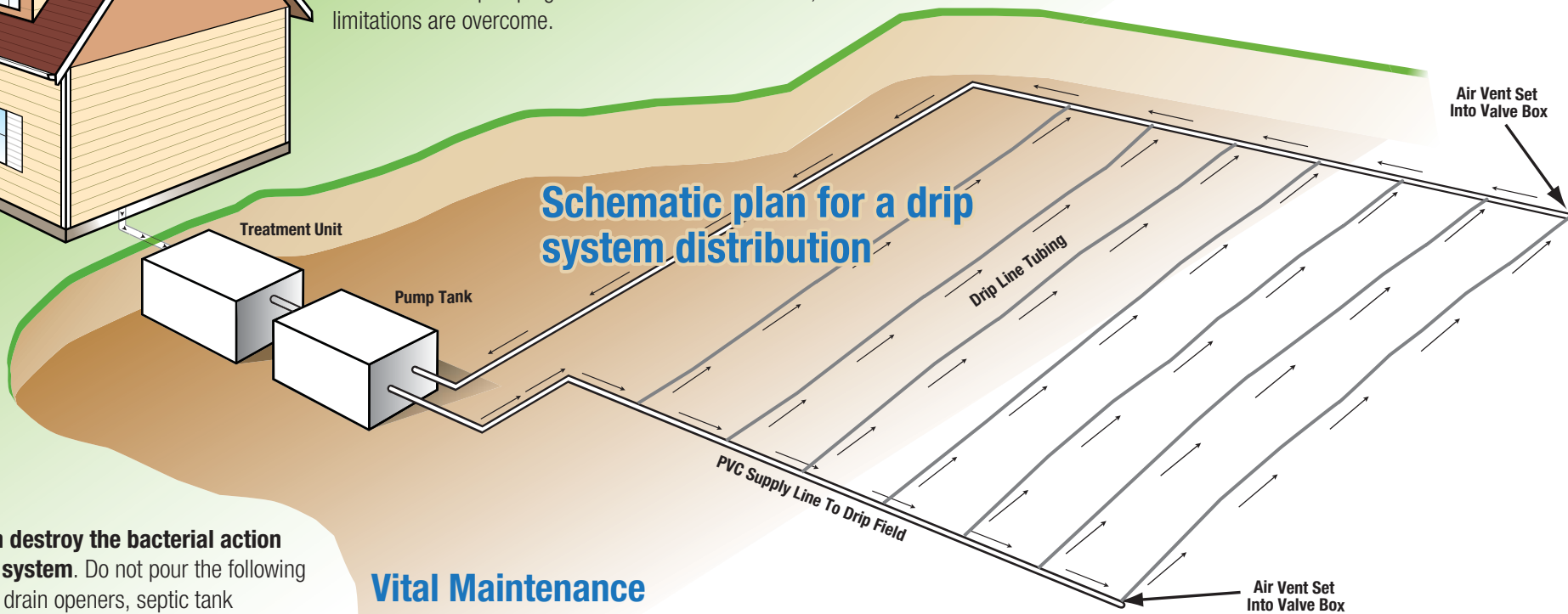
Greene County Resource Management Department
940 Boonville
Springfield, MO 65802
417-868-4147

HOW DOES A PRETREATMENT TO DRIP SYSTEM WORK?

Household waste or sewage enters the treatment unit where oxygen is introduced into the waste. This changes the biological process from anaerobic to aerobic. The oxygen speeds up the treatment process and decreases the strength of the waste. The treated effluent then enters into the pump chamber for distribution to the drip line absorption field. This process helps assure that soils with limitations can then handle the final treatment of the wastewater before it enters into the ground water supply. By treating the wastewater and pumping it in small doses into the soil, most limitations are overcome.



Schematic plan for a drip system distribution



Some chemicals can destroy the bacterial action taking place in your system. Do not pour the following down drains: chemical drain openers, septic tank additives, paint, varnishes, thinners, waste oil, photographic solutions, pesticides and other organic chemicals. Call University Extension to locate a household chemical collection center. In Springfield, call the Household Chemical Collection Center at 864-2000. If used according to the label directions, most other household cleaners and chemicals will not harm your system.

Conserve as much water as possible because excess water may cause the system to overload and allow effluent to the surface.

Keep all vehicles or heavy traffic off the lateral field to prevent collapse of the PVC pipes and drip tubing.



Have water wells tested every year. The Health Department provides low cost testing. Remember, the well that is closest to a drip system is usually your own.



Proper maintenance = properly functioning system

Vital Maintenance

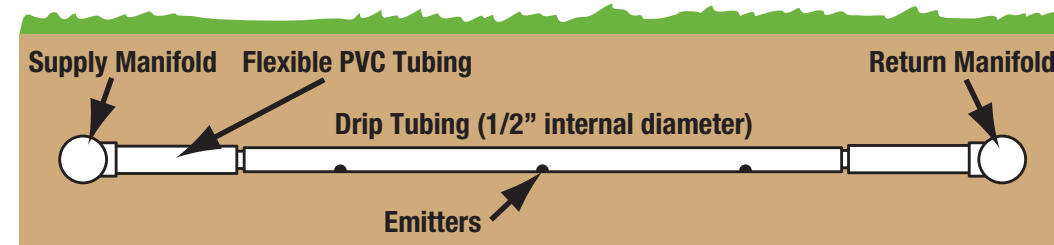
Have a certified installer or maintenance provider verify the pressure adjustment in your drip system twice a year. Also, drip tubing should be flushed, filters need cleaning out, and pumps and controls should be checked on a biannually basis. The Pretreatment unit components also require maintenance.

Seed and heavily mulch the entire lateral field to establish a protective cover. This prevents erosion and keeps the lateral field covered. The grass also transpires water to the atmosphere, removing some of the moisture from the system. Keep grass mowed to allow sunlight and wind to help dry the soil.

Fill any low areas within the field to prevent ponding. Excess water keeps the soil from naturally cleansing the wastewater.

An alarm will be mounted by the pump tank or on the exterior or interior of the home. The alarm is triggered by high water levels in the pump tank. This can be caused by many things including a pump failure or by problems in the absorption field. It is okay to silence the alarm but be sure to contact your service provider immediately to address the problem.

Drip Line Trench Section (side view)



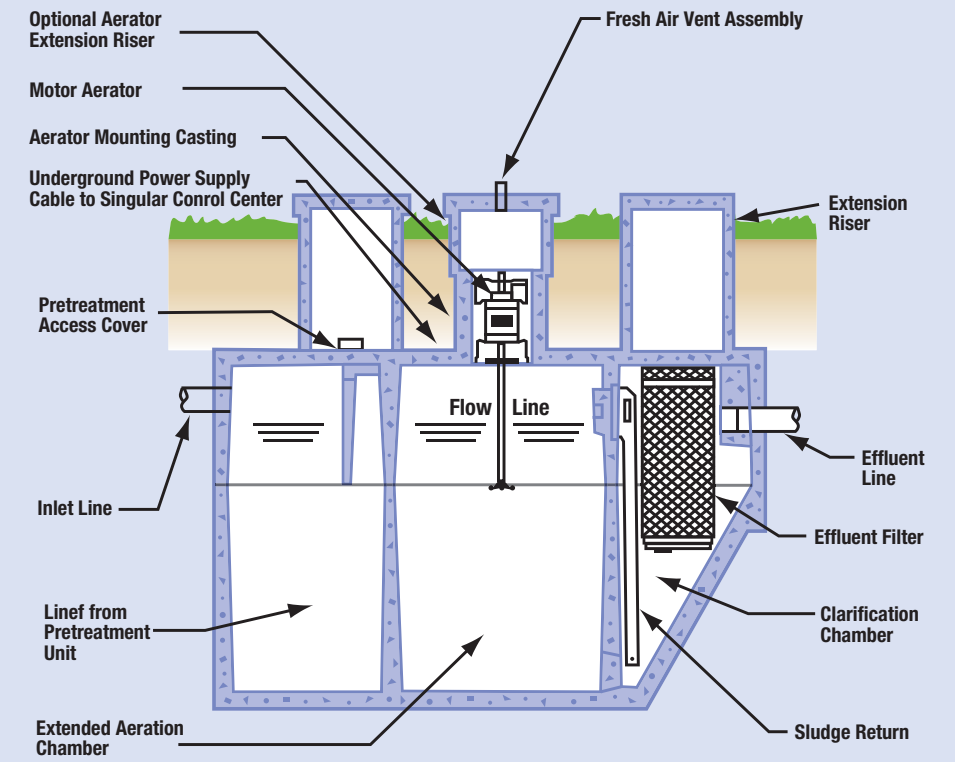
Original Ground Surface

Trench Spacing Based On Specific Site Design

Drip Tube, Trenched Or Plowed Into Soil, 6" to 12" Deep. Backfill Using Original Soil or Imported Soil In The Event of Rocky Material In Excess of 30 Percent

TREATMENT UNIT & PUMP TANK

One Type Of Treatment Unit Section View



Section Through A Drip System Pump Tank

