

## MAINTAINING YOUR LOW PRESSURE PIPE 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 low pressure pipe system inspected and maintained annually.

**Do** have your septic tank pumped out every 2-5 years.

**Do** keep your septic tank and pump tank 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 LPP system.

**Do** establish and maintain a good stand of grass over the lateral field and keep it mowed.

### DON'T

**Don't** go down into a septic tank or pump tank.

**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.

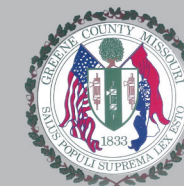
**Don't** pour into drains: septic tank additives, chemical drain openers, paint, varnishes, thinners, waste oil, photographic solutions, pesticides, pharmaceuticals and other organic chemicals. Minimize garbage disposal use.

**Don't** make or allow repairs to your system without obtaining the necessary permits.

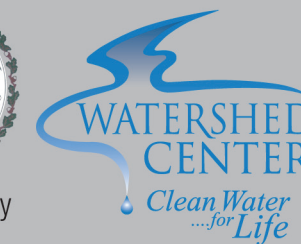
**Don't** use your toilet for trash disposal.

**Don't** allow backwash from your home water softener to enter the septic system.

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Greene County  
Resource  
Management



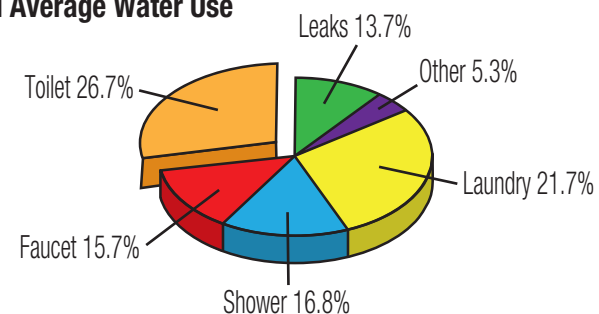
*Proper maintenance protects your family's health, saves you money, and guards area water quality*



## 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.

### National Average Water Use



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

One of the best things you can do for your septic system is to reduce the amount of water flowing into it. This is especially important if the soil on your lot does not readily absorb water.

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 front loading/high efficiency washing machine

## 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, including pumping the tanks, costs from \$150 to \$300. In contrast, replacing a failing system with a new one typically costs from \$4,500 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 low pressure pipe system was specified for your building location because of some limiting factor(s) in the soil and/or limited available space. 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 low pressure pipe 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.

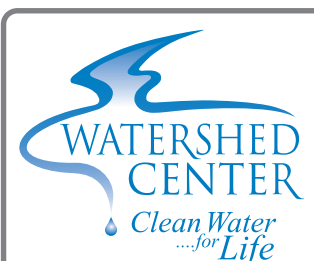
## WHY A LOW PRESSURE PIPE SYSTEM FOR YOUR PROPERTY?

Many building sites are unsuitable for conventional septic tank systems because of a high water table, shallow depth to rock, heavy clay content, restrictive layers in the soil, or limited available space.

A properly maintained low pressure pipe system can overcome these limitations because:

1. It permits lateral trenches to be placed at a shallower depth, in the best available soil.
2. It can distribute the effluent uniformly throughout the drain field.
3. Smaller absorption fields or footprint.
4. It allows the soil to rest between dosing cycles.

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



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417-868-4147

# HOW DOES A LOW PRESSURE PIPE SYSTEM WORK?

Household waste enters the septic tank where heavy solids settle out to form a layer of sludge on the bottom. Grease and light solids float to the top forming a layer of scum. The liquid, partially treated effluent flows from the tank into the pump chamber for distribution to the lateral lines.

When the effluent rises high enough to trigger the float switch, the pump turns on, pushing the liquid through the supply line into the distribution laterals. Under low pressure, effluent flows through holes in the laterals and into the gravel-filled trenches. It soaks from the trenches into the soil where bacteria finish treatment.

The float switch is set to turn on the pump two to four times every day. The rest periods in between allow soil bacteria to get the oxygen they need to process the effluent. If the pump or water level controls do not work properly, the rising effluent sets off an alarm, notifying you of the problem. The control panel, which includes an alarm and light, will be located near your home or system.

## MAINTAINING THE KEY COMPONENTS OF A LOW PRESSURE PIPE SYSTEM

**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 pharmaceuticals, 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 force effluent to the surface.**



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



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

### Handling Prescription Drugs

Do not flush prescription drugs down the toilet or drain unless the label or accompanying patient information specifically instructs you to do so.



For more information, talk to your health care provider, your pharmacist or visit:

**U.S. Food and Drug Administration**  
www.fda.gov/drugs and search "disposal"

**U.S. Environmental Protection Agency**  
www.epa.gov/ppcp

**Federal Guidelines on Disposal of Prescription Drugs**  
www.WhiteHouseDrugPolicy.gov/publications/pdf/prescrip\_disposal.pdf

Inspect the pump chamber every time you have the septic tank pumped or if the high water alarm sounds. If any sludge or scum are visible, have the tank pumped out. If these particles pass through the pump, they may clog the lateral lines or soil. Any of these conditions can lead to complete system failure and a costly repair.

### Have a certified installer perform the following maintenance annually:

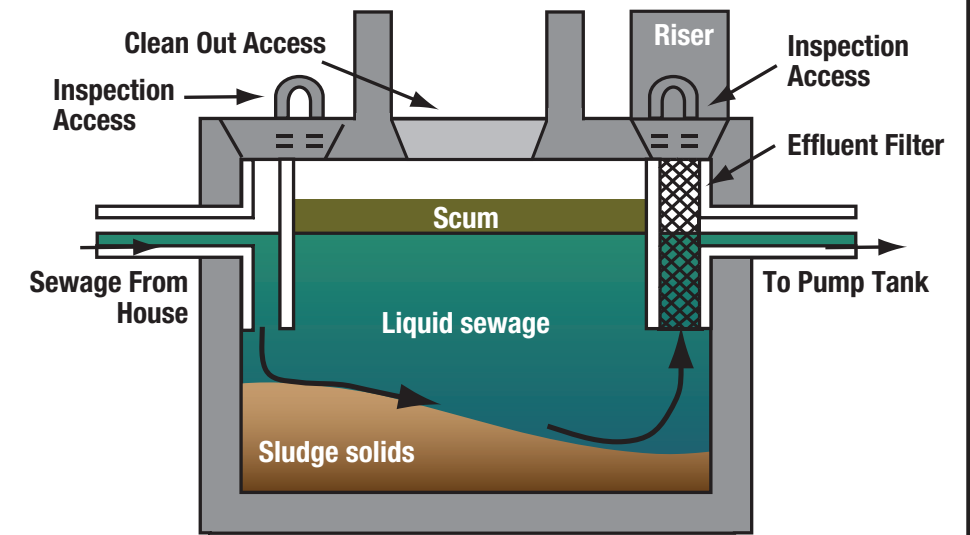
1. Flush lines
2. Adjust pressure
3. Clean filters
4. Check operation of pumps, alarms, and Flood Switches
5. Check septic tank solids accumulation for need of pumpout.

**Seed and 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.

Fill any low areas within the field to prevent ponding. Excess water keeps the soil from naturally cleansing the wastewater. **Do not ignore the alarm.**

## SEPTIC TANK

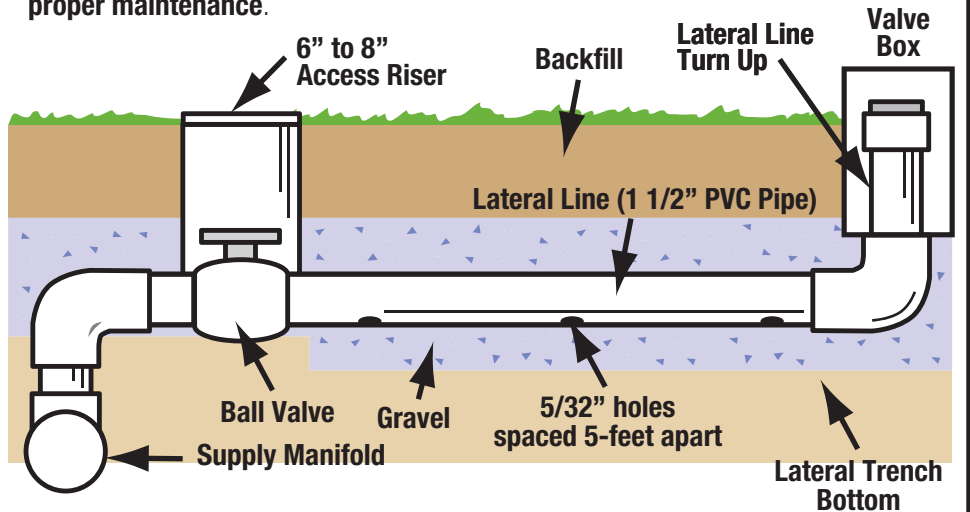
Hire a septic service to pump accumulated sludge and scum from the septic tank every 2-5 years. Natural bacteria break down part of this material, but not all.



**CAUTION!!** Do not use septic tank additives with a low pressure pipe system. They allow partially broken down solids to be held in suspension and transported into the pump tank. This can cause a nasty gelatin-like substance to form in the pump tank, ruining the pump and clogging the lateral lines.

## LATERAL INSTALLATION (detail)

These shallow, pressure-dosed soil-absorption systems require proper maintenance.



### WARNING

*Use the buddy system when inspecting a septic tank or pump tank. Never allow anyone to inspect a septic tank alone or go down into a septic tank or pump tank. Toxic gases are produced by the natural treatment processes in septic tanks and can kill in minutes.*

