Why do we need a sewer system?

Each time you flush the toilet or wash something down the sink's drain, you create sewage (also known in polite society as wastewater). One question that many people might ask is, "Why not simply dump this wastewater onto the ground outside the house, or into a nearby stream?" There are three main things about wastewater that make it something you don’t want to release into the environment:

1. It stinks. If you release wastewater directly into the environment, things get very smelly very fast.
2. It contains harmful bacteria. Human waste naturally contains coliform bacteria (for example, E. coli) and other bacteria that can cause disease. Once water becomes infected with these bacteria, it becomes a health hazard.
3. It contains suspended solids and chemicals that affect the environment. For example:
   * Wastewater contains nitrogen and phosphates that, being fertilizers, encourage the growth of algae. Excessive algae growth can block sunlight and foul the water.
   * Wastewater contains organic material that bacteria in the environment will start decomposing. When they do, these bacteria consume oxygen in the water. The resulting lack of oxygen kills fish.
   * The suspended solids in wastewater make the water look murky and can affect the ability of many fish to breathe and see.

The increased algae, reduced oxygen and murkiness destroy the ability of a stream or lake to support wildlife, and all of the fish, frogs and other life forms quickly die. No one wants to live in a place that stinks is full of deadly bacteria and cannot support aquatic life. That’s why communities build wastewater treatment plants and enforce laws against the release of raw sewage into the environment.

On-site sewage disposal is a necessity in areas that are not provided with city sewers!

For More information:
Egyptian Health Department: www.egyptian.org
Illinois Dept. of Public Health: www.idph.state.il.us
Environmental Protection Agency: www.epa.gov
Onsite Wastesite Professional of Illinois www.owpi.net

Your Septic System is your Responsibility!

Did you know that as a homeowner you’re responsible for maintaining your septic system? By maintaining your septic system, you protect your investment in your home. If properly designed, constructed and maintained, your septic system can provide long-term, effective treatment of household wastewater. If your septic system isn’t maintained, you might need to replace it, costing you thousands of dollars. A malfunctioning system can contaminate ground water that might be a source of drinking water. And if you sell your home, your septic system must be in good working order. This guide will help you care for your septic system. It will help you understand how your system works and what steps you can take as a homeowner to ensure your system will work properly. To help you learn more, consult the resources listed at the end.
Selection of A Sewage Disposal System

This bulletin presents an overview of home (onsite*) sewage treatment involving both conventional and alternative systems. Your licensed contractor can provide details on each system.

When choosing which type of system to use, certain factors must be considered so that the system selected will best serve the individual’s needs. These factors are:

1. Type of soil on the property.
2. Topography (lay of the land)
3. Lot size & enough land for installation
4. Surrounding features such as wells, water lines, property lines, lakes, driveway, etc.

The goal in system design is to provide a long-term solution for onsite sewage treatment and disposal. In many soils, a properly designed, constructed, and maintained onsite sewage system will last for years. Proven guidelines, however, must be followed in the design and installation of a sewage treatment system meeting both county ordinances and the Illinois Private Sewage Code. As the homeowner, you may pick up guidelines from Egyptian Health Department and install your own system but using an Illinois licensed contractor is highly recommended.

Types of Systems Include:
- Subsurface Seepage System
- Aeration Units
- Buried Sand Filter
- Recirculating Sand Filter
- Oxidation Ponds
- Drip Irrigation
- Mounds
- ...and more

Advantages & Disadvantages

Subsurface Seepage Systems

Advantages:
1. First choice of system for soils that will absorb septic tank discharges
2. Usually lower installation cost
3. Low maintenance

Disadvantages:
1. Requires soil that will absorb septic tank effluent (clay soils are unsuitable)
2. Extreme high water tables interfere with proper function

Aeration Units

Advantages:
1. Only small area needed for installation
2. High water table does not interfere with function
3. Does not depend upon soil to absorb effluent
4. Discharge site only 20 to 40 inches

Disadvantages:
1. Usually higher installation cost than seepage system
2. High maintenance costs
3. Electricity needed to run aerator and other necessary pumps

Oxidation Ponds

Advantages:
1. Cheapest system to install
2. Maintenance consists of mowing

Why should I maintain my septic system?

Regular maintenance will extent the life of your system. Failing systems are expensive to repair or replace. Inspecting regularly is a bargain compared to replacement. An unusable septic system or one in disrepair will lower your property value and could pose a legal liability.

Saving Money

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Protecting Health and the Environment

With one-fourth of U.S. homes using private septic systems, more than 4 billion gallons of wastewater per day is discharged. Inadequately treated sewage can be a cause of groundwater contamination. It poses a significant threat to drinking water and human health causing various diseases and infections.

How should I maintain my septic system?

Your new system should come with a 2-year maintenance agreement. Often, however, it may be up to you to remind the installer or the tank distributor of this agreement.

Keep a Maintenance Record for your system with your other household records. Record all important information—date, type of maintenance, contractor who did work, etc.

After the initial 2 year contract, if you do not extend it, you should have a typical septic system inspected at least every 3 years by a professional and your tank pumped as needed (generally every 3 to 5 years). Alternative systems with electrical switches, pumps, or mechanical components need to be inspected more often (generally once a year).

What Does a Contractor’s Inspection Include?

- Locating the system
- Uncovering access holes
- Flushing the toilets
- Checking for signs of back up
- Measuring scum & sludge layers
- Identifying any leaks
- Inspecting mechanical components
- Pumping the tank if necessary