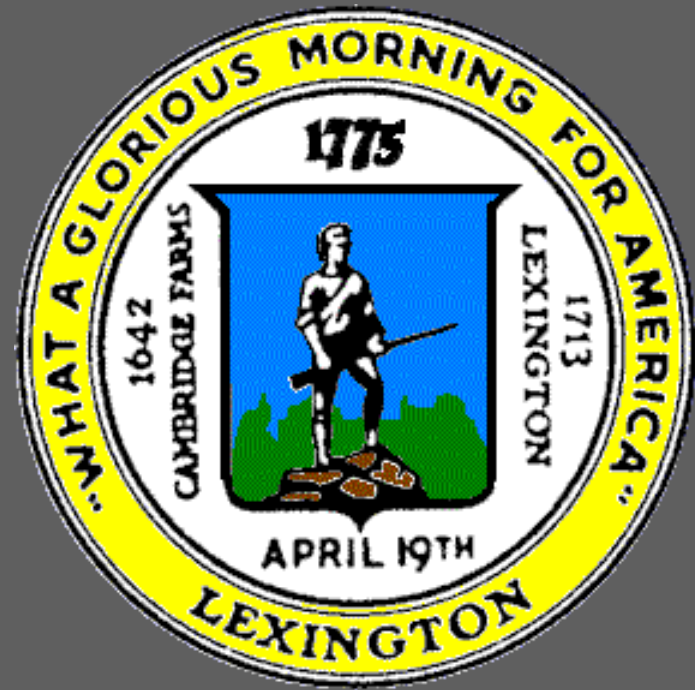


# A Homeowner's Guide to Septic Systems

- ➔ Presented to: Lexington Residents who own a septic system or cesspool.
- ➔ Date: June 15, 2005
- ➔ Provided by: The Town of Lexington Health Department and Board of Health



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# Septic System: 3 Components

1. Septic Tank
2. Distribution Box
3. Leach Field (Soil Absorption Field)

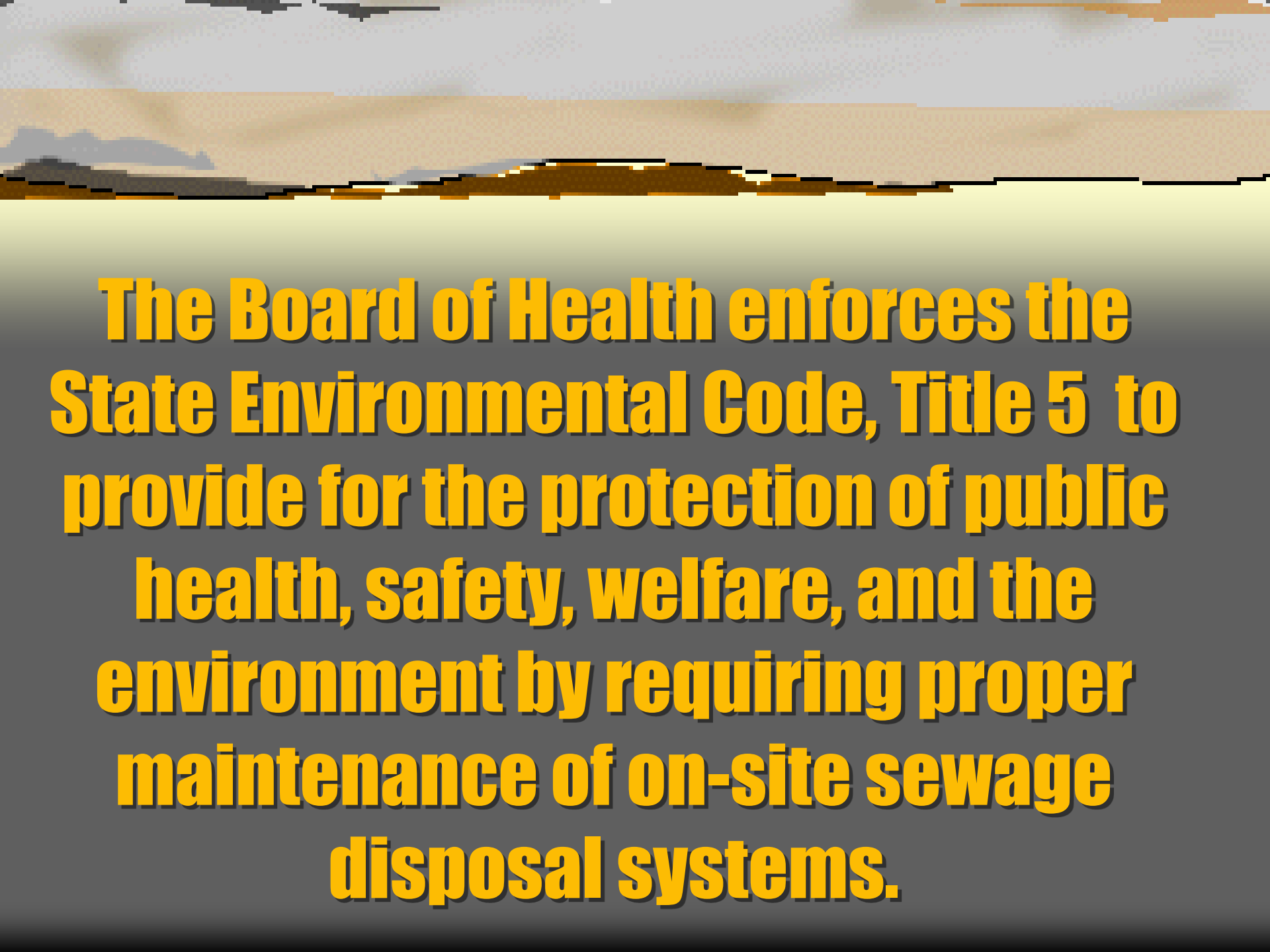
## Leaching Pit: 2 Components

1. Septic Tank
2. Leaching Pit

## Cesspool: 1 Component

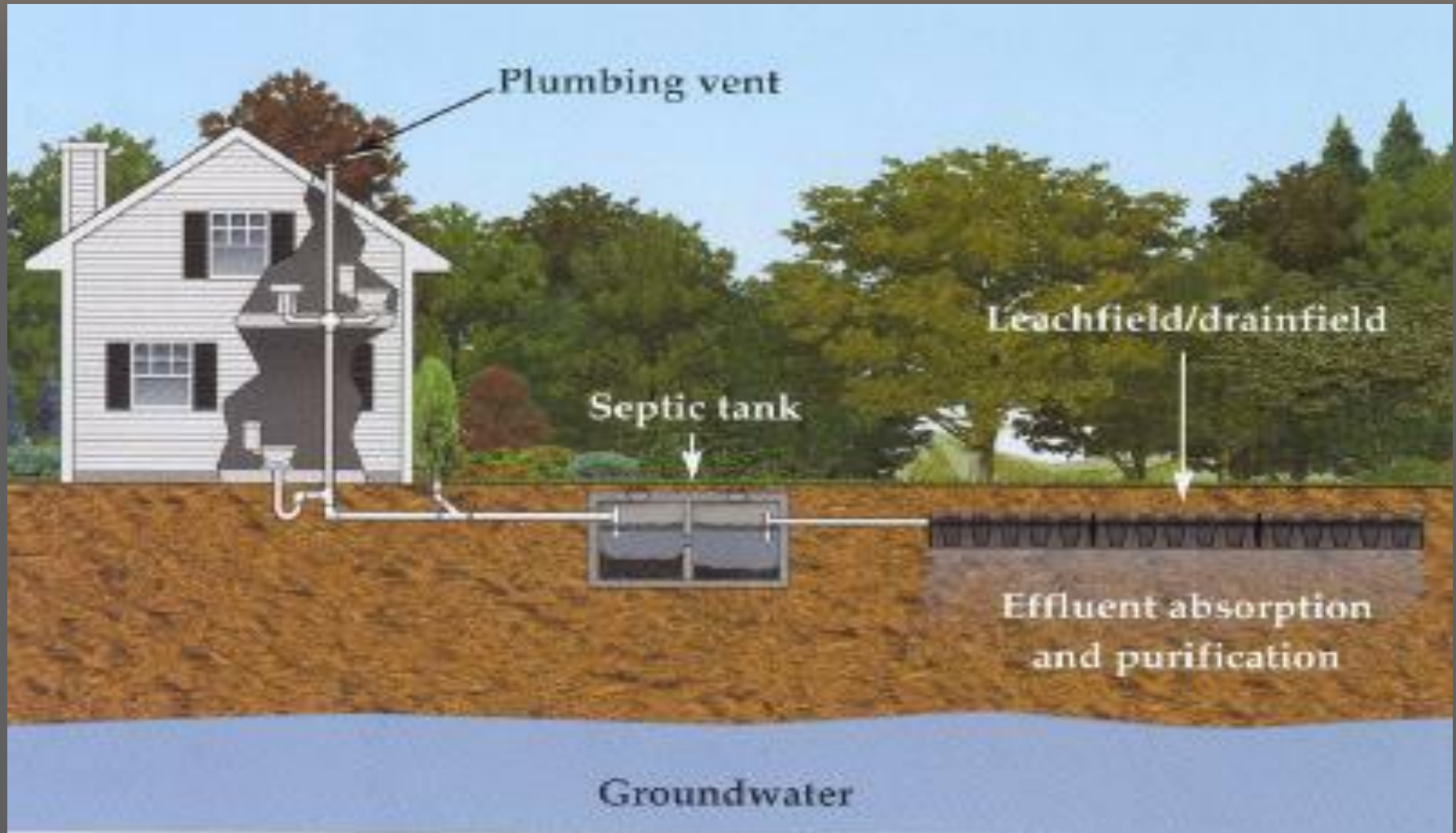
1. Leaching Pit

***“Not a component: Garbage Grinder”***



**The Board of Health enforces the State Environmental Code, Title 5 to provide for the protection of public health, safety, welfare, and the environment by requiring proper maintenance of on-site sewage disposal systems.**

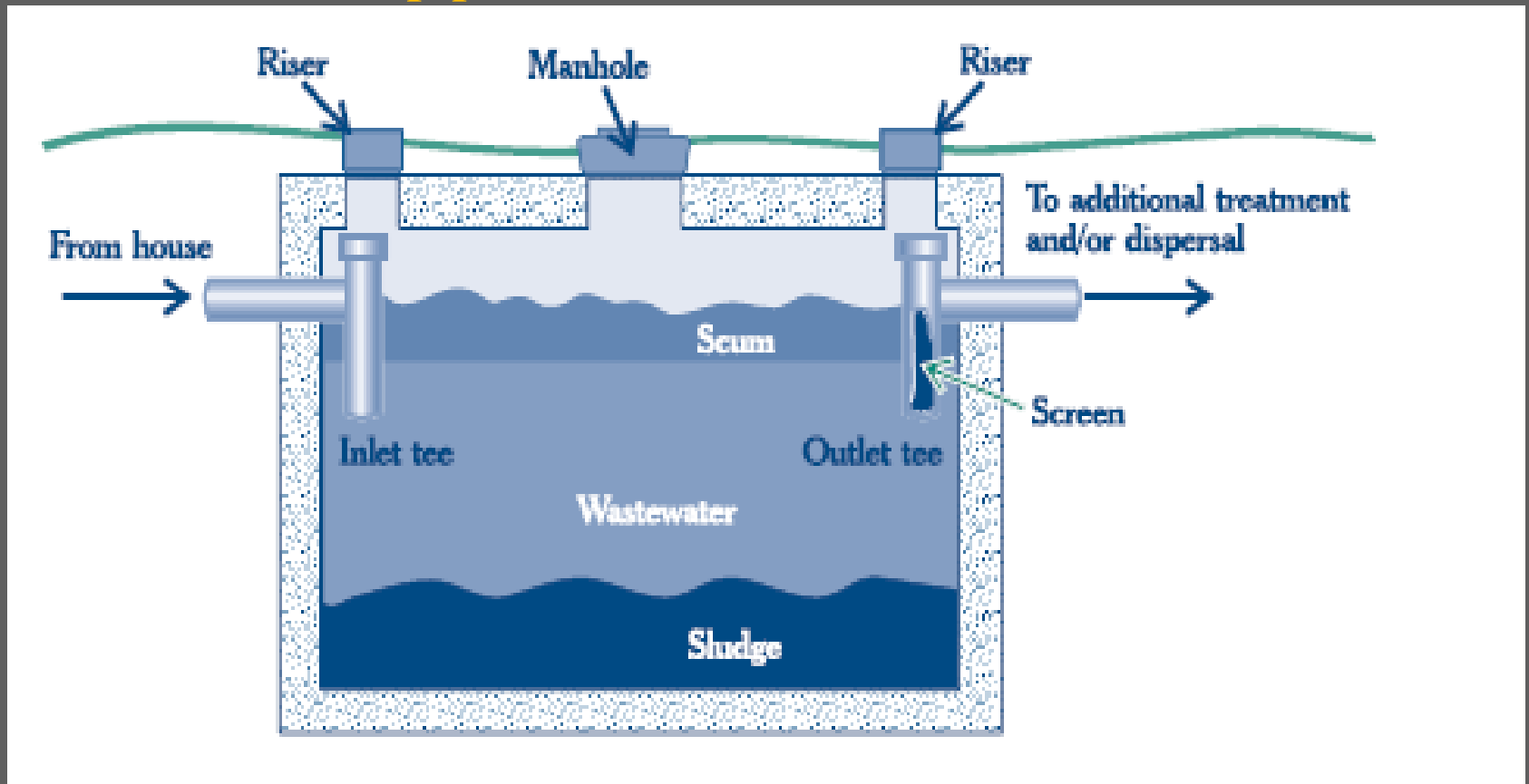
# Typical System Layout: Today



Source of Picture: <http://www.thenaturalhome.com/septic.html>

# Septic Tank:

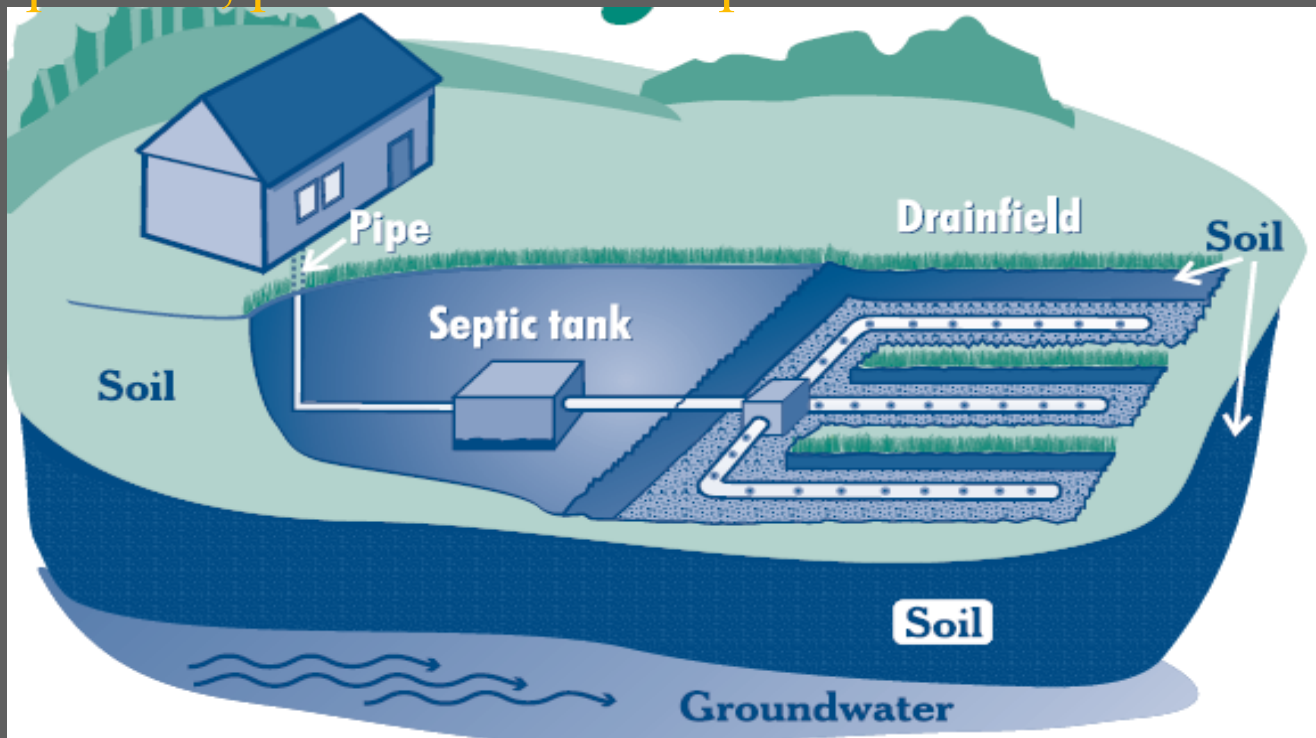
Wastewater exits the house and then enters your septic tank where solids settle to the bottom, grease and scum float to the top, and the remaining wastewater sits in between both layers. The wastewater then exits the outlet pipe where it travels to the distribution box.



Source of Picture: United States Environmental Protection Agency

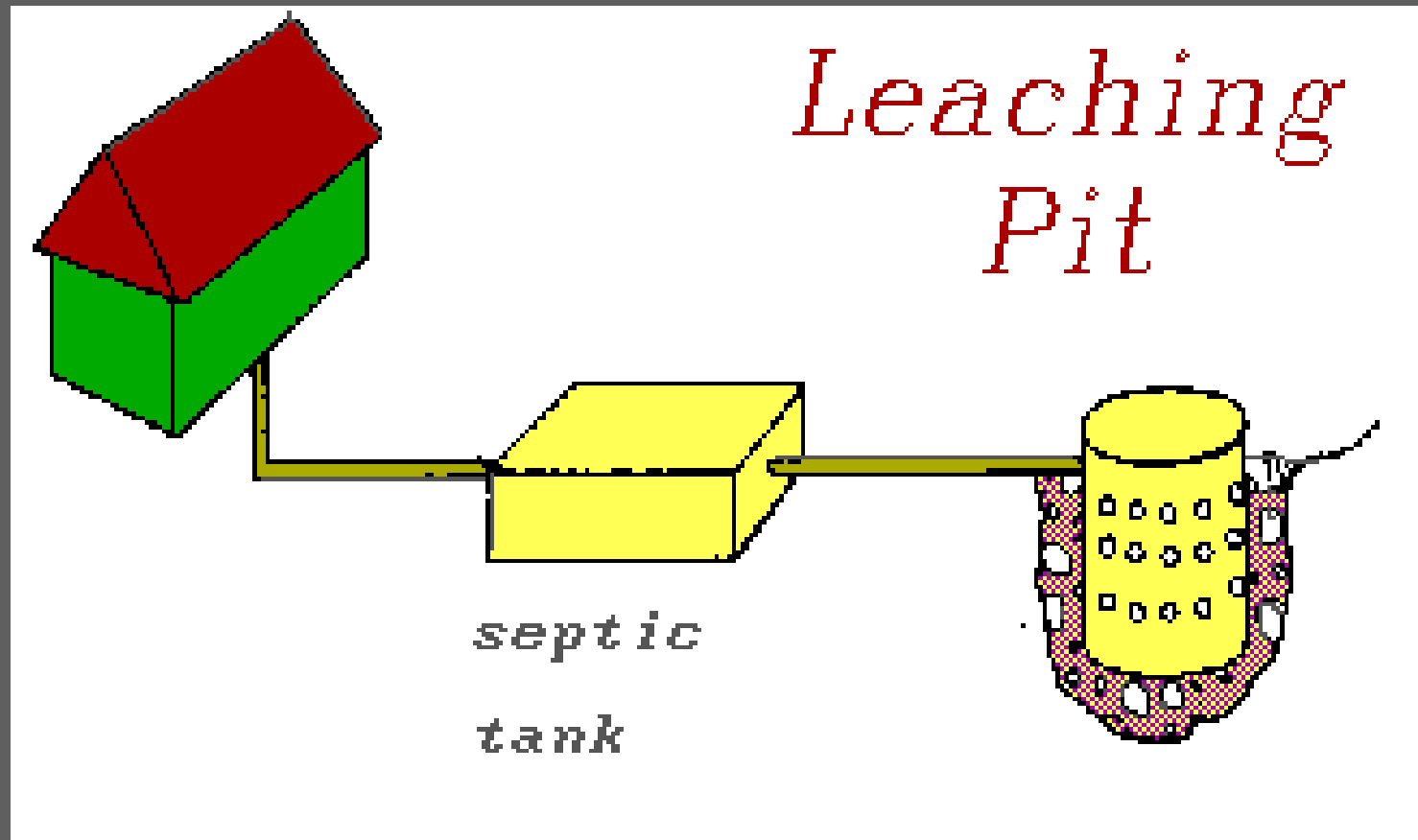
# Distribution Box & Leach Field

Wastewater exits the septic tank and enters the distribution box (d-box). The d-box evenly distributes the wastewater down each leach line. The leach line pipe has small holes that allow the wastewater to exit and travel through the soil for treatment before reaching the groundwater and nearby rivers and streams. (If you would like to understand the biological treatment process, please see ask a representative from the Health Dep't).



Source of Picture: United States Environmental Protection Agency

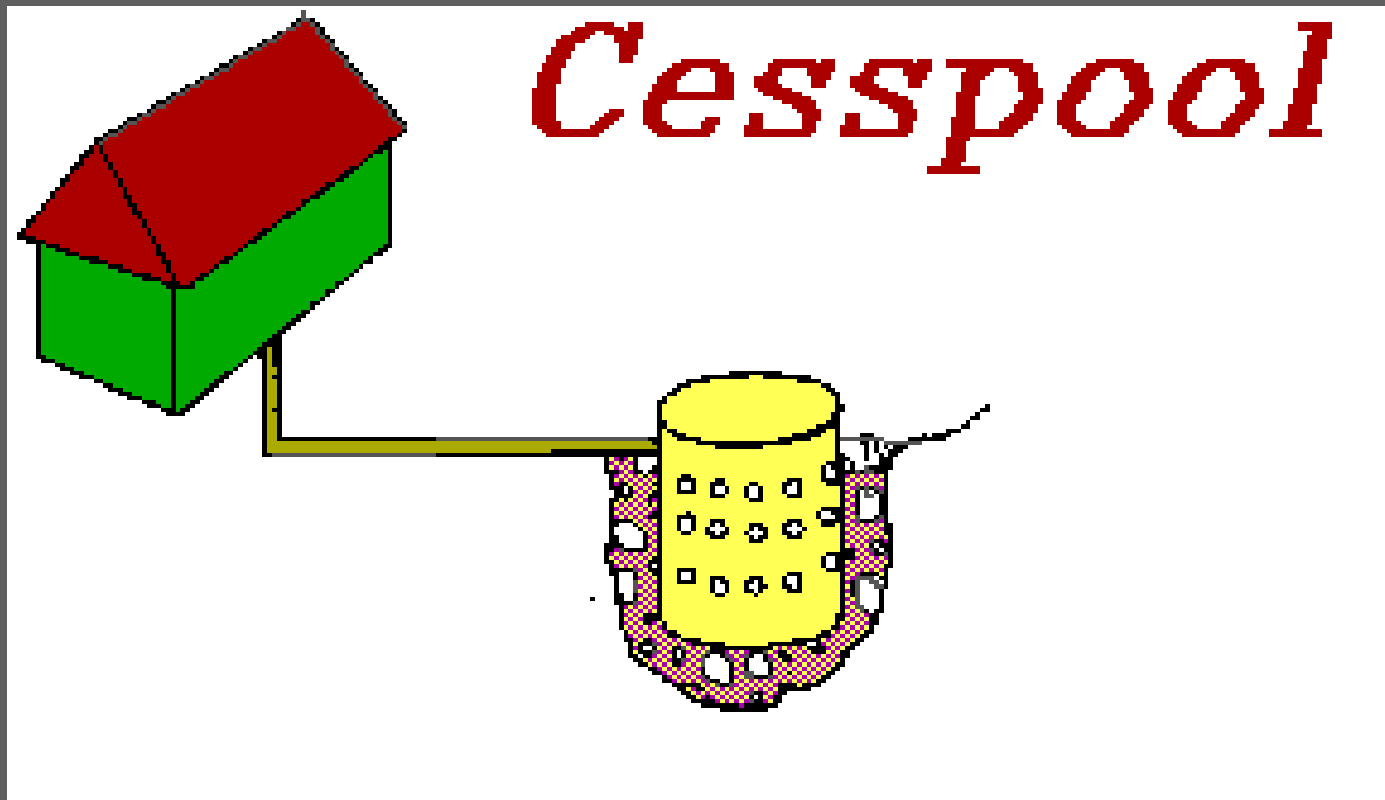
With a leaching pit, wastewater exits the septic tank and then enters a pit with large diameter holes where the wastewater exits and filters through the soil.



Source of Picture: Buzzards Bay Project Septic System Slide Show



In a cesspool, all solids and liquids leaving the home enter a leach pit without the presence of a septic (settling) tank. Wastewater exits the holes and enters into the soil. Many cesspools, typically installed before 1978, were installed with less protection to public health and the environment and did not require proper separation from the seasonal high groundwater.



Source of Picture: Buzzards Bay Project Septic System Slide Show

# Environmental Issues: Older & failing systems.

- ⇒ System is sitting in groundwater table. No filter treatment of wastewater through the soil to properly remove bacteria and viruses. Untreated wastewater enters groundwater which enters streams, reservoirs, lakes, etc.
- ⇒ Systems located too close to adjacent wetlands, rivers, streams, and other nitrogen sensitive areas creating algae blooms and eutrophication.
- ⇒ Domestic groundwater wells may be in close proximity to systems which may result in domestic and irrigation water contamination.
- ⇒ Failing systems may cause sewage breakout on lawns, backup into homes, which expose the public to harmful bacteria and viruses which may lead to disease and illness.
- ⇒ Nuisance odors posing health risk to people.

# Environmental Protection : Today

- ⇒ Proper distance from the bottom of the leach field to groundwater. Currently, new systems are required to have a minimum separation of the bottom of the leach field to seasonal high groundwater of 4 feet.
- ⇒ Four feet of natural occurring soil is required under leach system to properly remove bacteria, nutrients, and pathogens.
- ⇒ Proper setback distances to: Wells, Water bodies, Wetlands, House Foundations, etc.

# Pumping Requirements

➔ Pump your system out according to Lexington's Local Board of Health Regulations

Septic System:                      Every 3 years

Cesspool:                              Yearly

*or “sooner if needed”!!*

# Best Management Practices (BMP's)

- ⇒ Do not build over your system; shed, pool, or driveway over your system.
- ⇒ Avoid flushing objects and chemicals down into your system.
- ⇒ Use less water to reduce the amount your system has to process. Use water conserving fixtures (toilets, faucets, shower heads, etc.).
- ⇒ Check toilets and faucets for leaks.

# BMP's con't.

- ⇒ Locate your septic system or cesspool. Keep a sketch and maintenance / pumping record up-to-date for quick reference.
- ⇒ Do not do all your clothes washing on the same day. Spread loads out over each week, (limit to 2 per day).
- ⇒ Divert rooftop runoff, sump pump discharge, and pool backwash away from your system.
- ⇒ Ensure that your waste pumper inspects the inlet and outlet pipes of your system and reports the conditions to you.
- ⇒ Consider adding a filter to your outlet pipe (septic systems only) to prevent fecal solids carryover into your leach field.

# Don'ts

⇒ Don't dispose of "**CLOGGERS**" down into your system.

\*Diapers      \*Cigarettes      \*Grease      \*Dental Floss

\*Feminine Hygiene Products      \*Kitty Litter      \*Paper Towels

⇒ Don't flush "**KILLERS**" down in the system & into the  
Environment!!

\*Household Chemicals      \*Oil      \*Gas

\*Paints/Thinners      \*Pesticides      \*Fertilizers

*Remember: NO GARBAGE DISPOSAL, instead, COMPOST!!*

# Safety

- ➡ Do not open your septic tank or cesspool cover by yourself. Have a professional inspect your system. Do not ever put your head into the tank or cesspool as gases may cause unconsciousness and death.
- ➡ Avoid wet areas where the system may be overflowing or backing up on the lawn. The wastewater may contain harmful bacteria and viruses.
- ➡ If you have a backup into your home, clean all areas with diluted household bleach and water (wear rubber gloves, eye protection, protect cuts and scraps on skin). Rugs and other absorbent areas should be professionally cleaned or discarded.



# Symptoms of a failing system

- ⇒ Frequent clogging or slow draining of your toilets, showers, and drains.
- ⇒ Backup of sewage into your home or your yard.
- ⇒ Surface “breakout” of wastewater on the ground. Liquid seeping out sloping terrain adjacent to your home. Wet lawn and mushy lawn areas (may not have odor).
- ⇒ Lush green grass over your system during dry weather.
- ⇒ Unpleasant odors around your house.

# What to do if you think your system is not working properly:

- ⇒ Call a Massachusetts Approved Title V Inspector to have your system inspected.
- ⇒ Contact the Lexington Health Department at 781-862-0500 Ext. 200, 249, or 237.
- ⇒ If your system fails an inspection you must connect to town sewer within two years.



# Questions and Answers