

# So What's the Problem?

- Leach or drain field systems rely on the soil to treat and purify the wastewater before it enters a water body, such as a bayou or creek. However, we live in an area with high rainfall and a shallow water table, so the soils don't have adequate time to filter the effluent before it is flushed out.
- In clay soils, water filters more slowly than in sandy or silty soil, causing water to back up. When the effluent can't filter through the soil, it flows along the top, untreated, into our bayous, creeks and bays.

# **Alternative Systems**

A licensed professional must design a system that works with your site's conditions, and you must obtain a permit before installation of any septic system. These are some alternatives to discuss with your designer:

#### **Aerobic Systems**

Treats wastewater using the same process, on a smaller scale, as our municipal wastewater treatment facilities. They remove 85 to 98 percent of the organic matter and solids, producing effluent as clean as from a municipal facility, and cleaner than effluent from conventional septic tanks.

#### **Mound Systems**

An elevated absorption bed that utilizes suitable sands to partially treat wastewater before it reaches native soil. Mound systems are used to augment native soils for complete treatment and disposal.

# **Trickling Filter**

A drip system that distributes the effluent uniformly across the lawn for reuse by the plants in the landscape to prevent over-saturating the soil.

#### **Sand Filter**

Consists of beds of gravel or sand, which drains from underneath so pretreated wastewater can be collected and distributed through the final treatment and dispersal system.

## **Low-Pressure Dosing**

Pumps partially treated effluent into the soil several times throughout the day. This system works well in clay soils because it spaces out the time between inundations.

All septic systems require maintenance, particularly an aerobic system. The lowest installation cost is for an aerobic system. However, long term maintenance costs are less for other system types.

On-Site Sewage Facilities (OSSF): ossf.tamu.edu





# How Your System Works

and into your septic system. When you flush the toilet, use the sink or do laundry, water flows down the drain

# In the Tank, Wastewater Settles into 3 Layers:

Top Layer — Lighter oils and fats float to the top, creating scum.

Middle Layer — Clarified water collects in the middle and then flows into a distribution box.

Bottom Layer — Heavier waste sinks to the bottom, forming sludge.

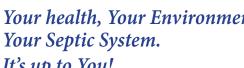
## Effluent Distribution

wastewater to drain into gravel trenches for temporary storage. Clarified water from the distribution box flows through small holes in distribution lines, allowing the

#### In the Soil Absorption Field

The effluent slowly seeps into the subsurface soil, where it is further treated and purified by the soil's

microorganisms.



TEXAS COASTAL WATERSHED P R O G R A M

Your health, Your Environment, It's up to You!

1250 Bay Area Blvd., Ste. C

Houston, TX 77058

