

Pickaway County Public Health (PCPH) does not endorse any manufacturer of sewage treatment system (STS) or components. Models, Manufacturers, and Products will vary. Please consult with a registered service provider on information relating to your STS.

## How It Works: Drip Distribution System

The Drip Distribution System, also known as Drip System, is a mechanical timed dose soil absorption STS. This system is installed on lots that are irregular shaped or have site constraints.

## **Components:**

**Septic Tank(s) or Aeration Treatment Unit (ATU)-** This is the first step in the wastewater treatment process. This system can be designed with a septic tank or an ATU. An ATU is like a septic tank except it has a motor to pump oxygen into the tank to help break down scum/solids through aerobic digestion. *\*View our Tank factsheet located on our website to learn more.* 

**Pump Tank**- This holds the sewage effluent until it doses into the drip tubing. The pump tank is timed dose, meaning it is set to a timer to dose in cycles throughout the day into the drip tubing.

**Drip Tubing-** This is the secondary treatment component of the STS. It is made of sustainable polyethylene rubber tubing. The drip tubing is installed 6" to 12" below ground. It could be installed deeper or above ground in a mound based on soil conditions. Throughout the tubing are flow emitters that control the flow of sewage effluent by micro dosing into the soil.

**Flush valve-** The flush valve is connected to the pump tank and the return line. The flush valve is used to flush the drip tubing to prevent bacteria growth and clogging

The drip system is a mechanical system; it uses electricity for the pump, timer, flush valve, and the Aeration Treatment Unit (ATU), if equipped. All the electrical wiring, fuses, and switches for the system is in the control panel. The control panel is equipped with an alarm. If the alarm is flashing and/ or making an audible noise or a component is malfunctioning, call a registered service provider.

Because it is a mechanical system, it is also required to maintain a valid service contract with a registered service provider for the drip distribution system.



## **Homeowner O&M Requirements**

- Homeowners with a drip distribution system must maintain a valid:
  - $\circ$  O&M Permit with PCPH every year.
  - $\circ\quad$  Service contract with a registered service provider

annually. The operation and maintenance of the drip distribution system is taken care through the service contract with the registered service provider. **NEVER ATTEMPT TO SERVICE THE SYSTEM**.

It is the homeowner's responsibility to:

- Maintain the service contract.
- Retain all records of your STS in a file.
- Do not flush anything down the drains that is harmful to the system. \*\*View the EPA SepticSmart document on website to learn more.
- Have the tank(s) pump when necessary (recommend 3 to 5 years).
- Do not plant any bushes/trees, or deep-rooted landscape in distribution area.
- Do not build any structures (pools, sheds, garages, decks, etc.) on the STS .
- Keep the tank lid(s) exposed for easy access into the tank(s).
- Check for any evidence of erosion, dark green overgrown grass, or bleeding/ ponding of sewage effluent in the distribution area.
- Call a registered service provider when your system is malfunctioning.

## How does sewage effluent get treated through the soil?

The tank(s) help filter out the solids (what is left is the sewage effluent). The sewage effluent is treated through natural biological activity found in the soil and the physical characteristics of the soil.

Sewage effluent is a buffet of organic matter that bacteria, nematodes, and other small organisms found in the soil love to chow on to break down and absorb the sewage effluent as nutrients. The sewage effluent will then percolate, or filter through the soil naturally treated.



How fast the sewage effluent can filter through the soil depends on the percentage of clay, sand, and silt (loam) there is present in the soil. If the soil has more clay, it will take longer for the effluent to filter through the soil. If the soil has more sand, it will be faster for the effluent to filter through the soil.

