



## LAND APPLICATION OF SEPTAGE IN FLORIDA

Land application in Florida historically has been the primary method of disposal of septage. Septage was used on farms, pasture, and tree groves as a source of fertilizer. Little or no regulation was enforced on land application until the late 1970's. In the late 1970's the Department of Environmental Protection adopted 17-7, a regulation for land application. The Florida Department of Health started enforcement of DEP 17-7 for application of lime stabilized septage.

As the Florida Department of Environmental Protection adopted new regulations in the 1980's and 1990's the Florida Department of Health also adopted compatible rules and regulation for land application of septage. The current rules in place with the Florida Department of Health reflect the combined effort to comply with the Federal EPA, Florida DEP and sound agricultural practices.

According to the **EPA Guide to Septage Treatment and Disposal, EPA 625-R-94-002** the EPA recognizes that:

*Land application of Septage is an economical and environmental sound method of handling septage that is the method of choice for most rural communities with sufficient suitable land.*

All of Florida's current regulation complies with and is designed around information from the Federal EPA. **The Domestic Septage Regulatory Guidance, EPA 832-92-005, September 1993, A Guide to the EPA 503 Rule** "contains standards which are designed to protect public health and the environment from reasonably anticipated adverse effects of pollutants in sewage sludge (and domestic septage)." It also reports that:

*When analyzed in a laboratory, domestic septage is usually shown to contain low level of heavy metal and other pollutants.*

*The most common fertilizer nutrients contained in domestic septage are nitrogen and phosphorus. These nutrients, along with certain trace fertilizer elements and organic matter, make domestic septage valuable for use on agricultural land, forest and reclaim sites.*

*The requirements governing land application of domestic septage to non-public contact sites are less burdensome but not less protective than the other requirements for land application of sewage sludge's in the EPA Part 503 Regulation.*

The **Domestic Septage Regulatory Guidance EPA 832-92-005 September 1993** states that:

*Limits on application rates and restrictions on crop harvesting, animal grazing, and site access and limited application rates minimize the addition of pollutants and the potential for over application of the fertilizer element nitrogen, hence protecting ground water and surface water from contamination with excess nitrogen, restriction on crop harvesting, animal grazing and site access protect form contact with pathogens while still potentially viable.*

According to **The EPA Guide to Septage Treatment and Disposal, EPA-625-R-94-002**

*A properly managed land application program achieves beneficial reuse of waste organic matter and nutrients without adversely affecting public health.*

And with regard to inspecting onsite systems and pumping of septic tanks:

*Most municipalities rely solely on homeowners to maintain their wastewater disposal systems. Unfortunately, negligence can lead to early failure of the soil absorption system, increasing the cost burden to the owner and potentially threatening the health of the homeowner and neighboring residents.*

Land application of septage in Florida has been closely governed by the Florida Department of Health and the Florida Administrative Code, Standard for Onsite Sewage Treatment and Disposal Systems, Chapter 64E-6. A successful land application program has been administered over the last 30 years. Lime stabilization and land application of septage is the only alternative available to many in rural locations around Florida.

Long term data from current land application sites show no adverse effects to the public health or increased pollutants to the environment according to a Treated Sludge Land Application Disposal Site Report by Burney's Septic Tank Service, Inc.

In the more populated areas, some Wastewater Treatment Plants (WWTPs) allow haulers to dispose of septage at the treatment facility. The cost per gallon is up to triple the cost of land application based on information from interviews with land appliers and EPA's published guides to septage disposal. Many WWTPs will not accept septage, or limit the gallons per day that the hauler can dispose.

FOWA created a **Septage Land Application Committee** chaired by Ellen Vause, Florida Septic, Inc., that was tasked with:

- Providing the Florida Department of Health comments on the SB550 ban on Land Application of Septage regarding the continued use of Land Application.
- Providing industry expertise and support for the report to the Governor in February 2011 on methods and alternatives for improving requirements of land application and/or the ban of land application.

FOWA members met with the Department of Health on September 22, 2010. Committee members volunteered to compile information on the current land application sites, compare the 62.640 DEP rule to the 64E DOH rule on land application, and get cost comparisons for alternative disposal methods.

FOWA members met on October 7<sup>th</sup>, 2010 to compare 64E to 62.640. The primary difference between the DEP rule and the DOH rule is 3<sup>rd</sup> party oversight. While DOH land application sites and domestic septage stabilization facilities less than 10,000 gallons per day are allowed to land apply according to the nutrient requirement of the crop grown; no sampling is required of the stabilized effluent. Inspections by the Department of Health are done on a yearly basis, along with a review and update of the Agricultural Use Plan. No other inspections or reviews are performed. Looking at these differences, the committee feels the following recommendations should be offered for discussion:

### **3<sup>rd</sup> Party Oversight:**

- Class C Operator visits: Discussion of the frequency needed for DOH Plants/Sites
- County Department of Health inspections frequency of visits
- Regional Department of Health inspections frequency of visits
- Single Sites: Only one authorized applier per property

### **Operational Procedures:**

- Metered Receiving: to more closely track gallons per day
- Larger Holding/stabilization tanks: Are larger tanks needed for more effective stabilization and storage
- pH Meter: The use of a pH meter in lieu of pH strips
- Sampling: Type and frequency of stabilized effluent sampling

### **Reporting:**

Use data from stabilized effluent sampling to report yearly nutrient loadings to the application site.

A ban on land application of septage would impact the State of Florida adversely. The cost of pumping and maintaining the Onsite Sewage Disposal System would increase substantially. The demand on current WWTP facilities to accept septage would likely strain the facilities' capacity. Capital cost to start up septage receiving stations by municipalities would negatively impact the county/city budget in the current economic times.

With a few upgrades to the current DOH 64E rule the department can assure that the practice of land application meets the requirements to protect public health and not adversely affect the environment. FOWA is ready and willing to participate in any way to help the Florida Department of Health with these challenges.