

Wastewater Installers

Alternative Methods of Effluent Reduction

There are additional methodologies of effluent reduction and dispersion that are not prevalent in the state due to lot size, topography or other constraints, but are listed as available options for homeowners and installers. All designs or questions about alternative methods of effluent reduction should be submitted to the sanitarian parish manager with approval needed prior to installation.

Overland Flow

Overland flow is a type of dispersion system that promotes wide-applied soil infiltration of the effluent. The pumping chamber will distribute effluent from the mechanical sewage system to large acre properties. This system is permitted when the property is 3 acres or more and will be used as permanent vegetation cover. The

discharge through a 4-inch perforated pipe must be distributed in such a manner as to confine the effluent on the property owned by the generator. A header should be used at the end of the discharge line to help disperse the effluent and to discourage channelization. The point of discharge must be such that there is at least a 200-foot flow of effluent over the property of the generator. The discharge point and field of flow must be a minimum of: a) 50 feet from any private water wells, b) 20 feet from any property line, c) 100 feet from public water supply wells, and d) 25 feet from potable water (pressure) lines.

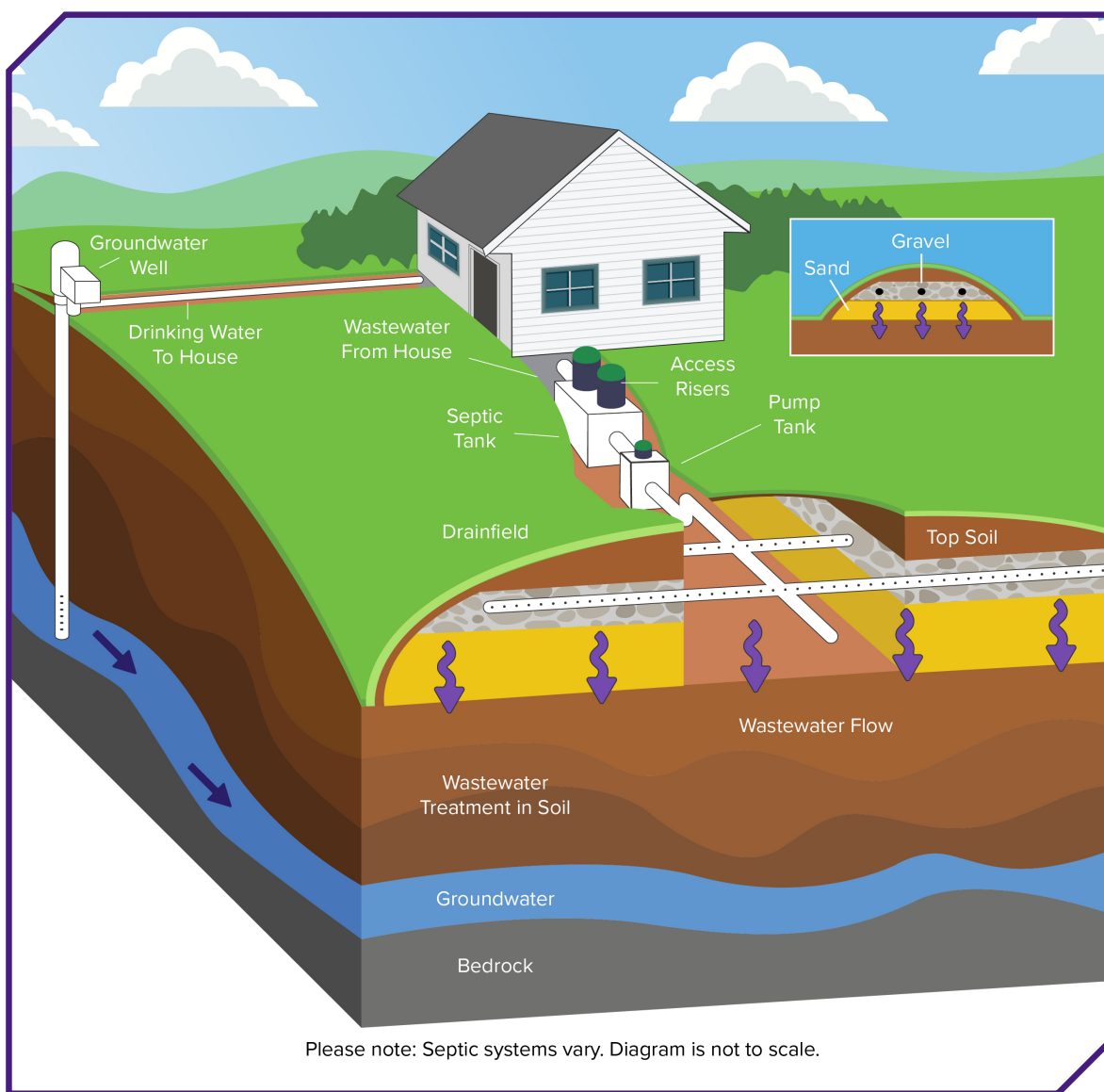


Example image of piping for overland flow. Photo by Richard Grabert

Mound System

Mound systems are formed land spaces that provide additional areas for treatment where land topography does not permit standard field lines or treatment options. This is most common in areas of shallow soil depth, shallow bedrock or high groundwater table. This type of construction often requires substantial spaces and periodic maintenance to ensure proper treatment of effluent. A sand mound is constructed

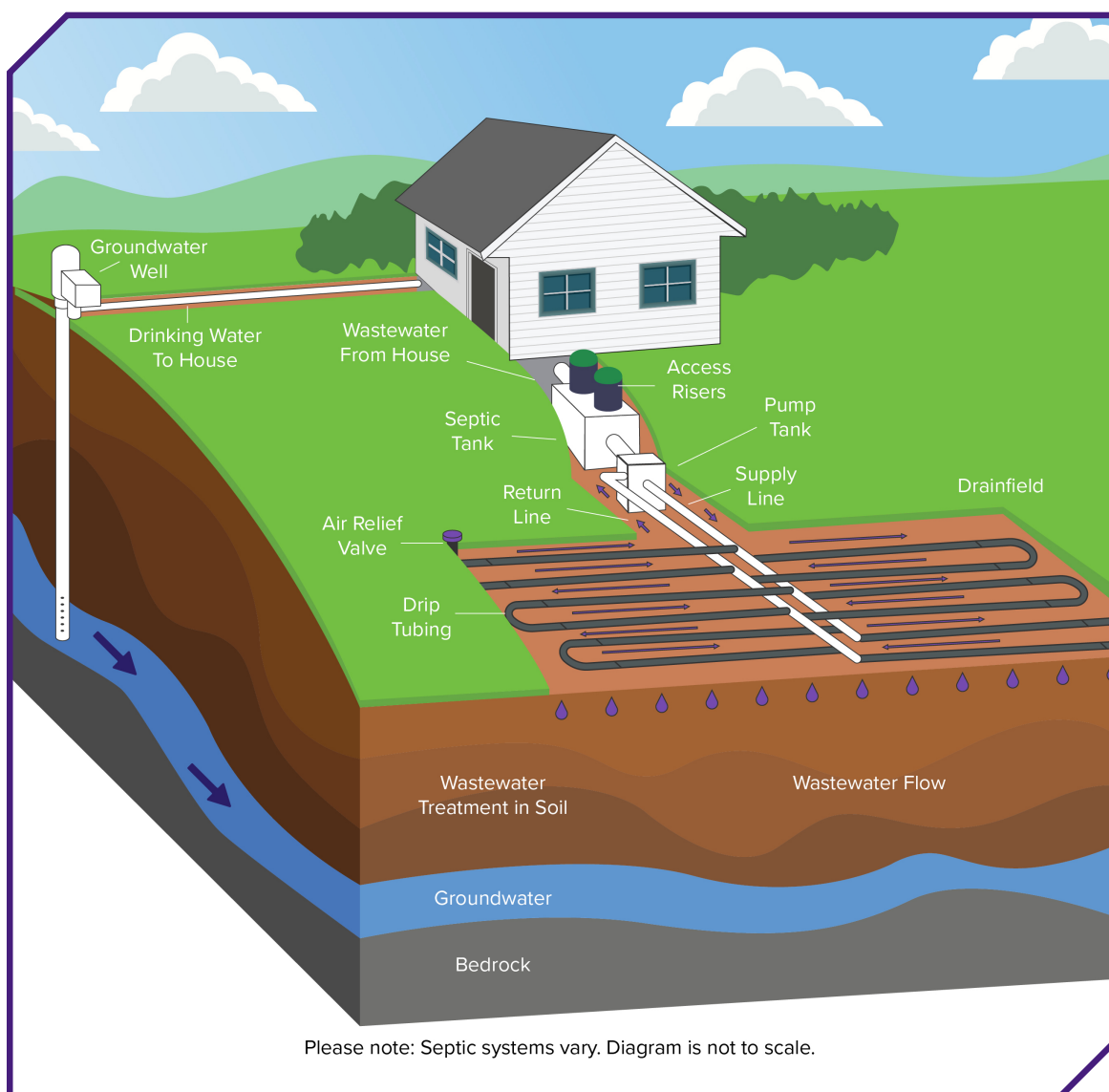
next to container-perforated drainfield lines for effluent dispersion. Mound systems are approved for aerobic treatment unit (ATU) effluent reduction, not septic tanks. The effluent from the ATU is pumped to the field lines and the discharge is treated by filtering through sand and distributed into native soil profile for further microbial processing.



Subsurface Drip System

A subsurface drip system is a type of field line that promotes time-dosed delivery for effluent dispersion. Similar in concept to a standard drain field, the subsurface drip system can be placed in shallower soil types (most commonly 6-12 inches in depth) and does not require mound build-up or trenches. These drip systems require large pumping chambers to provide adequate volume for the slow-timed dose delivery method which is required for the shallower absorption areas. Additionally, pumping components can be used to circulate wastewater effluent through the drip system, but will increase cost, electricity usage and maintenance.

The Louisiana Department of Health Office of Public Health (LDH-OPH) can approve either mound or subsurface drip systems on a case-by-case basis. Design plans and specifications must be submitted to LDH-OPH engineering services in consultation with the sanitarian regional director for review and approval prior to construction. [The Public Health – Sanitary Code LAC Title 51 Part XIII](#) has examples for each style system for construction designs.



References

- <https://www.doa.la.gov/media/j3hnpfdy/51.pdf>
 - <https://ldh.la.gov/page/wastewater>
 - <https://www.epa.gov/septic/types-septic-systems#mound>
 - <https://ldh.la.gov/assets/oph/Center-EH/sanitarian/onsitewastewater/3020.pdf>
 - <https://ldh.la.gov/assets/oph/Center-EH/sanitarian/onsitewastewater/7748.pdf>
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