

# **VAN WERT COUNTY GENERAL HEALTH DISTRICT**

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## **Van Wert County Health Department Household Sewage Treatment System Enviro-Septic Experimental Program Overview**

Ohio law currently requires household sewage treatment systems utilize soil absorption for the final treatment and dispersal of all wastewater generated in new homes constructed on new building lots. When possible, soil absorption systems must also be utilized for treatment and dispersal of wastewater generated in new homes constructed on existing building lots, or in existing homes when replacement of an existing sewage treatment system is necessary. When replacing an existing failed sewage treatment system, discharge of treated wastewater off of the property is only permissible as a last resort, and must be done within very stringent requirements.

Due to the high clay content and low permeability of the majority of the soils in Van Wert County, sewage treatment system soil absorption components must be made very large, with absorption areas often exceeding 1500 square feet. These large sizes are necessary not only to disperse the water into the soil, but also to account for soil clogging that will eventually occur due to organic materials and suspended solids found in effluent that leaves a conventional septic tank after primary treatment.

The majority of soils found in Van Wert County also have shallow perched seasonal high water tables. This means that, during the wet part of the year, the soils are saturated at or near the surface. Saturated soils do not provide adequate treatment of wastewater. As a result, modern soil absorption systems must be designed to distribute septic tank effluent to a surface that is above the highest level of seasonal saturation in the soil. The combination of the need for a large absorption area and the need for a system that distributes wastewater high in the soil profile or even above the surface of the existing soil can result in a soil absorption system that is very expensive (due to the large amount of material required to achieve the necessary elevation) and difficult to fit on many rural properties. The area needed for soil absorption can be reduced by using advanced treatment units to treat the wastewater to a higher level before dispersing it into the soil, however the cost of the additional treatment units often offsets any benefit achieved in terms of absorption area reduction.

In order to offer homeowners a new opportunity to provide a higher level of sewage treatment while using a smaller portion of their property, the Van Wert County Health Department has obtained approval from the Ohio Department of Health to introduce a new sewage treatment system component to the state of Ohio. At the heart of this absorption component is a pipe product called Enviro-Septic. This specially designed pipe provides additional treatment to the wastewater after it leaves the septic tank, capturing many of the contents of the wastewater that would otherwise contribute to soil clogging. The highly-treated liquid released by the pipe then passes through a bed of specially graded sand before it is absorbed into the soil. The high level of treatment provided within the pipe and sand means that the wastewater is more easily accepted by the soil, justifying a smaller soil absorption area. Where allowed by site topography, this absorption component can be installed as a completely passive system, without any of the pumps or mechanical components associated with many advanced treatment systems.

Because the Van Wert County Health Department and Ohio Department of Health are very interested in learning more about the performance of this new technology, this system is being introduced in Van Wert County as part of an experimental program. While participating homeowners are given the opportunity to provide a higher level of treatment at a potentially lower cost than was previously available in a system of this type, they will be required to grant access to Van Wert County Health Department environmental health staff for the purpose of periodic inspection and monitoring of their systems.

The Van Wert County Health Department remains committed to offering Van Wert County residents multiple household sewage treatment system options that will provide a high level of protection of the environment and public health at an affordable cost. For more information on the Enviro-Septic experimental program or the household sewage treatment system program, contact the Van Wert County Health Department at 419-238-0808 or visit [www.vanwertcountyhealth.org](http://www.vanwertcountyhealth.org).

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