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FREQUENTLY ASKED QUESTIONS ABOUT HOUSEHOLD SEWAGE TREATMENT SYSTEMS (HSTS)

What is a Household Sewage Treatment System (HSTS)?

A HSTS is a system that is used to properly treat and dispose of the sewage that comes from the house. “Treat” means to kill all harmful pathogens, which includes bacteria, viruses, parasites, and all manners of things that can harm you. “Dispose” means that the wastewater goes where you won’t see it again. An approved HSTS will have two components that includes a septic tank and a secondary component that kills the bacteria through treatment.

What is sewage?

Sewage is any liquid waste that comes from toilets, bathtubs, washing machines, floor drains or other sanitary fixtures. This does not include water from the sump pump or water softener which may be harmful to the HSTS.

If the sanitary sewer is available and within 200 feet, do I have to install a HSTS?

No, if the foundation of your home is 200 feet or less from the right-of-way of an accessible sewer line the home must be connected to the sanitary sewer. If the foundation is greater than 200 feet then your home would not be required to tap into the sanitary sewer, but would be required to have a functioning HSTS.

I am thinking about buying a new piece of property to build a new house. How do I find out if the property is approved for a HSTS?

First, find out if the property has sanitary sewer available. If so, you must contact the authority of the sanitary sewer to make arrangements for tap-ins. If sanitary sewer is not available, you must contact a **certified soil scientist and designer** to have them evaluate the soil and determine if the soils of the property can properly treat and dispose of the wastewater and what type of system would be needed.

How do I find a certified soil scientist?

You may find a list of certified soil scientists at the following link:

<http://www.ottawahealth.org/pdf/Household%20Sewage%20Treatment%20Systems.pdf>

or from the Ohio Department of Health website link:

<http://www.odh.ohio.gov/odhprograms/eh/sewage/STSpages/Soil%20Scientist%20and%20Soil%20Resource%20Page.aspx>

What services do soil scientists provide and how much do their services cost?

Soil scientists are trained to analyze the characteristic of the soil to determine if soil will allow the movement of water down through the soils and be able to remove harmful pathogens. Soil scientists also evaluate the depth of the seasonal water table, which is hard for most untrained people to determine, but is an important factor in proper treatment of waste water. Fees vary between soil scientists, but expect to pay \$300 or more for their services. It is best to get several quotes before making your final decision on who will evaluate the soil.

A certified soil scientist has evaluated the soils, what is the next step?

Once a detailed soil analysis has been completed by a certified soil scientist, you are now ready to have the HSTS designed based on the type of soils and the hydrological features of your piece of property.

How can I find a HSTS designer?

A sewage system designer can be found on the Ottawa County website at

<http://www.ottawahealth.org/pdf/Household%20Sewage%20Treatment%20Systems.pdf>

or you may use the Ohio Department of Health link:

<http://www.odh.ohio.gov/odhprograms/eh/sewage/STSpages/Soil%20Scientist%20and%20Soil%20Resource%20Page.aspx>

What services does a HSTS designer provide?

A sewage system designer must be able to design systems in accordance to the layout of your property, the soil type as determined by a soil scientist, and any other limitations on your property such as slopes and waterways and other limiting factors. Designers must provide detailed plans that provide several options of a HSTS types and components that will work on your soils.

What is the price range for sewage system designs?

Cost of a household sewage treatment system design may vary greatly depending on the level of certification a designer has and the amount of details that must go into certain types of sewage systems. Some soil scientists are also able to design systems and may charge less money to do both soil survey and designs.

What questions should I ask a sewage system designer?

It is very important to work with a designer to evaluate the different system types available for your property. Most lots can accommodate more than one system design with varying types of components. You should ask what it will cost to design a system and if there will be any additional charges if the system must be redesigned or altered. You should also ask if the designer will be available and provide oversight of the system as it is being installed.

I already have a soil analysis completed and a household sewage treatment system design for my property, why do I have to apply for a site review?

It is required that the health department sanitarian review the proposed HSTS and data that is provided by the owner and an on-site evaluation of the lot. This review is to ensure that the HSTS proposed meets the requirements of the Ohio Administrative Code 3701-29. You must make application for the site review prior to obtaining an installation permit.

How long is a site review good for?

Starting January 1, 2015 all site reviews that are approved will be valid for 5 years from the approval date, provided there are no changes. The site review will remain on file at the health department until you are ready to apply for an **installation permit**. If an installation permit is not obtained prior to the expiration date, you will be required to fill out a new site review application, submit new plans, and submit new fees if you are still planning on installing a HSTS.

What does Ottawa County Health Department charge for a site review?

The cost for each site review is \$450.00.

What is the HSTS installation permit?

A HSTS installation permit provides the homeowner permission to install a HSTS according to the site review that was submitted and approved by the board of health.

What is required to get a HSTS installation permit?

Once the site review has been approved the Ottawa County Health Department requires that the homeowner fill out the HSTS installation permit application, sign and date it. For the HSTS installation application to be complete a HSTS installer that is registered with the Ottawa County Health Department must be entered and a cost estimate of the installation must be provided.

What is required to get a HSTS alteration permit? An alteration permit is required when you are replacing your septic tank or making any modifications to your existing STS due to increases in the number of bedrooms to your home, etc. In order to get an alteration permit, our department must have an existing permit on file or for systems where there is no information, an accepted Installer Evaluation is required. The Ottawa County Health Department requires that the homeowner fill out the HSTS alteration permit application, sign and date it. For the HSTS installation application to be complete, a HSTS installer that is registered with the Ottawa County Health Department must be entered and a cost estimate of the alteration must be provided.

How long is an HSTS installation or an alteration permit good for?

The installation and alteration permit is good for one year from the date the permit is approved.

What types of HSTS are commonly installed in this region?

Most systems installed now are; shallow trenches, mounds with pressurized dosing or “drip irrigation” among others. These types of systems are installed to treat the wastewater above the seasonal water table to prevent contamination of ground water.

What is the seasonal high water table?

It is a situation where soil is temporarily saturated with water. It can be at certain parts of the year such as spring or fall or during temporary high rain events. Our region is known to have a very high seasonal water table because of the structure of our soil types and has an average depth from 8” to 2” from the ground surface.

What are the installation requirements of a HSTS where there is a high seasonal water table?

The Ottawa County Board of Health has adopted a resolution for vertical separation distances between the seasonal water table and where the HSTS is placed in situ soil. The HSTS must be installed at least a 6 inches above the seasonal water table where there is at least 6 inches of in situ soil. Where the seasonal water table is between 0 and 6 inches the vertical separation distance between the seasonal water table and the HSTS is 1 inch as long as a pre-treatment unit is used.

How much do HSTS cost?

The cost of HSTS may vary greatly depending on size and type of system. Most systems in this region have seen prices range from \$15,000 to \$25,000 for installation. This cost does not include the soils analysis, design work, site review fee or HSTS permit application fee.

Why are HSTS sized based on number of bedrooms?

A household sewage treatment system must be sized to adequately treat the amount of wastewater discharged from a home and to prevent a nuisance. The state requires local health department to utilize bedrooms as the best determining factor that reflects the number of people that potentially live in a home. The rules also state that a den, study, or offices are rooms that could reasonably be used as a sleeping room.

How do I find a contractor to install the HSTS?

Contractors that install or repair sewage systems in Ottawa County must be registered with the health department. Sewage system installers can be found on the Ottawa County website at www.ottawahealth.org or you may pick up a list of installers at the health department.

Can an off lot discharging systems be used to replace a household sewage treatment system at an existing home?

Yes, it must meet the **National Pollutant Discharge Elimination System (NPDES)** effluent water quality standards. The list of approved systems is on the Ohio Department of Health web site, here is the link:

<http://www.odh.ohio.gov/~media/ODH/ASSETS/Files/eh/STS/NPDESapprsyslist.ashx>

Once a site review is approved by our department, the property owner must also apply for a permit with the Ohio Environmental Protection Agency and maintain an operation and maintenance contract, including annual sampling, for the life of the system.

What is an NPDES?

An NPDES is a system that allows the local health department to permit installation of a household sewage treatment system that discharges off-lot into the water of the states as long as the sewage systems have been approved to meet certain effluent water quality standards as determined by the OEPA.

What type of sewage system is approved under NPDES?

Most HSTS that are approved under the NPDES consist of mechanical aeration system that uses air to oxidize and decompose sewage as a method of treatment. In addition, these systems have UV lights or other components to further treat the effluent before it can discharge off-lot. All NPDES HSTS must be approved by Ohio Department of Health and meet the effluent standards as required by law, so that it does not create a public health nuisance. A complete list of approved NPDES HSTS can be found at www.odh.ohio.gov.

How can I get a NPDES permit to discharge?

NPDES HSTS can be installed for existing lots (created prior to January 1, 2007) and for replacement of failed systems if no other on-lot sewage systems can be installed. The health department must rule out and make the final determination that no other possible on-lot treatment systems exist before permitting the installation of an NPDES HSTS approved systems. However, NPDES HSTS cannot be installed for any new construction of homes on lots created after January 1, 2007.

If the health department permits a NPDES approved sewage system for my property, what steps do I need to take?

Once the health department determines that the only system you can install is a NPDES HSTS, you must make application with the OEPA along with \$200 payment. Once OEPA reviews and approves the application, you are now ready to get an installation permit from our office as described above.

Are there any other requirements with NPDES?

Once you have a NPDES HSTS installed, you are required to have an annual service contract for a service provider to maintain the NPDES HSTS for the life of the system. NPDES HSTS have mechanical components and other parts that have to be maintained regularly to function properly. You will also be required to have the NPDES HSTS sampled annually.

I'm told I will need an operation and maintenance (O&M) permit for my HSTS once it is installed, why and how much is it?

The Sewage Regulations, Ohio Administrative Code 3701-29, went into effect January 1, 2015. In those rules require all new HSTS that are installed since the effective date of these rules will be issued an operation and maintenance permit. This will require the property owner to apply for a permit and have a service provider for the life of the HSTS. The cost of the O&M permit is \$75.00. The length of the permit varies; for systems with mechanical parts (pumps and/or motors) the length of the permit is one year, for systems that use gravity the length is 5 years. This application and fee is required to be submitted at the time of application for the installation permit.

Where can I find more information on sewage systems?

Information regarding sewage systems can be found on the health department website at www.ottawahealth.org. More information can also be found on the Ohio Department of Health website at www.odh.ohio.gov. We can help answer any questions you may have by contacting us at 419-734-6800. You may also visit our office at 1856 E. Perry Street, Port Clinton between the hours of 7:45 am and 4:30 pm Monday through Friday.