

## Homeowner Meeting Checklist – Faulty Sewage Treatment System Options

PROPERTY OWNER			
Name(s):			
Address:			
Telephone number:			
Email:			
Meeting Date/Location			
INFORMATION PROVIDED & REVIEWED		HCPH INITIALS	OWNER INITIALS
<input type="checkbox"/>	Wastewater Hierarchy – Sanitary Sewers, Soil Absorption Systems, Discharging Systems		
<input type="checkbox"/>	Sanitary Sewer ( Sewer Availability Form and Assessment Sewer Process)		
<input type="checkbox"/>	Repair, Replace, Incremental Replace		
<input type="checkbox"/>	Application to Replace an STS - Current List of Designers in Hamilton County		
<input type="checkbox"/>	What Do I Need To Do before and with an STS Designer?		
<input type="checkbox"/>	System Options: Manufacturer Information for New Sewage Treatment Systems <a href="https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/sewage-treatment-systems/approved-products/">https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/sewage-treatment-systems/approved-products/</a>		
<input type="checkbox"/>	Typical types of soil absorption systems		
<input type="checkbox"/>	If soil based system not possible - Responsibilities of the NPDES Permit (Facts Sheet)		
<input type="checkbox"/>	What impacts costs (installations)		
<input type="checkbox"/>	Estimating Ongoing Costs (Operation, monitoring, service, maintenance)		
<input type="checkbox"/>	Estimated Timelines (Design Approvals, Contractors Bidding, etc.)		
<input type="checkbox"/>	Financial Aid Information For Septic Repair/Replacement and Water/Sewer Connections (Facts Sheet)		
<input type="checkbox"/>	Other:		
<input type="checkbox"/>	I understand what the next steps are and that I must submit a repair, alteration or replacement application within 60 days of today's dates. I understand that I must keep the soil at my property undisturbed and that if I intentionally cause disturbance to the soil, I could be held liable and in violation of Ohio Laws and Rules which could subject myself and other property owners to civil and/or criminal prosecution under ORC 3718.10 and fines provided under ORC 3718.99.		

Signature-Owner

Date

## Hierarchy of Wastewater Treatment (Replacements)

1. Sanitary Sewer Connection is required if it is available
  - i The sanitary sewer is capable of accepting flow as determined by the sanitary sewer authority;
  - i The nearest point of the right-of-way containing the sanitary sewer is less than or equal to 200 feet from the nearest point of the dwelling or structure; and
  - i The sanitary sewer is not limited for use because of a legal barrier, physical barrier or other technical feature as determined by the Health District.

If sewer is not currently available, options to get sewer service are:

-Complete the Request for Availability Sewer Service (RASS) Form and submit to MSD if you are interested in seeking private connection or extension of the sanitary sewers to your property. MSD will determine the necessary steps for you so that you might be able to connect sanitary sewer.

-Complete the Request for Assessment Sewer Citizen Petition to MSD if you are interested in MSD extending sanitary sewer service via property assessment to your property. MSD will undertake a citizen petition which will likely require you to seek support from your neighbors for the project. See enclosed assessment sewer fact sheets from MSD.

2. If Sanitary Sewer is not available, a Sewage Treatment Systems (STS) that uses the soil for 100% absorption on the property is required.

-Options: May have different combination of pretreatment units to choose from as well as different type of soil absorption systems. Discuss with designer.

3. If a soil absorption system that uses the soil for 100% absorption is not possible, a Sewage Treatment System that discharges on the property to an adequate drainage area may be permitted.

-Options: If you must discharge, discuss options for best treatment options to prevent future problems, prevent high operating costs, discuss partial soil absorption systems, discuss options for higher level of treatment to offset yearly sampling requirements or potentially even negate the need for a Permit from Ohio EPA.

4. If an adequate drainage area does not exist on the property then a Sewage Treatment System that discharges off lot (requires a recorded easement) can be permitted.

-Options: Same as above.



# KNOW THE FACTS!

## Benefits of Connecting to the Sanitary Sewer

*Connecting to the sanitary sewer benefits not only property owners, but the community as well.*



*For more information about connecting to sanitary sewers, contact the Water Quality Division at 513-946-7966 or the Metropolitan Sewer District at 513-557-5914.*

### Benefits to you and your community:

- Cleaner waterways and local environment.
- Improved protection of drinking and surface water.
- Reduced occurrence of foul/septic odors.
- Cost savings over routine maintenance, service, repair and operating cost of an onsite Sewage Treatment System (STS).
- Elimination of dampness and/or seepage from the STS.
- Property becomes more marketable to a wider percentage of the population, which can result in an increased property value.
- Cost savings over replacing or updating the STS to meet the current standards.
- Fewer disease carrying mosquitoes.
- Reduced risks to public health.

### What else to consider?

Entire STSs or their components often wear out and can have several common problems such as:

- **High Operating Costs** – For many STSs, these can include routine pump-out charges, electrical usage costs, service/replacement costs for mechanical components and additional maintenance/permit costs.
- **Poor Wet Weather Performance** – Many older homes have their downspouts, footer tiles, and/or area drains improperly connected to the STS. Additionally absorption fields of older STSs are not typically sized for water logged ground conditions.
- **Improper Maintenance** – When improperly maintained, STSs will release excessive bacteria, viruses, solids, nutrients, grease and other contaminants into the environment, causing premature failure of absorption fields and/or pollution of surface and groundwater.
- **Odors** – From pumping out sewage tanks or poorly maintained or failing STSs.
- **Site Limitations** – Prevents home additions, construction of outbuildings or other upgrades to property since the STS would need updated or replaced.
- **High Replacement Cost** – Today's STSs must meet more stringent standards than existing systems met when they were installed. Materials, labor and equipment costs are higher, which leads to increased installation costs and operation/maintenance costs.



PREVENT. PROMOTE. PROTECT.

250 William Howard Taft Road, 2nd Floor  
Cincinnati, OH 45219  
Phone 513.946.7800 Fax 513.946.7890  
[hamiltoncountyhealth.org](http://hamiltoncountyhealth.org)

Updated: 02/20/2013

# KNOW THE FACTS!

## Septic System Abandonment and Sanitary Sewer Connection

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*Whenever sanitary sewers are constructed in an area that utilizes Sewage Treatment Systems (STSs), Ohio Sanitary Code requires that those systems be abandoned and the structure's building drain be connected to the available and accessible sanitary sewer.*

### Who determines whether the sanitary sewer is available and accessible to my property?

The sanitary sewer authority determines availability by looking at the capacity of the sewer. Once availability is determined, properties are deemed accessible if the building's foundation is within 200 feet of the sewer easement boundary and private property does not need to be crossed to reach the sewer.

### How long do I have to comply?

Once Hamilton County Public Health (HCPH) is notified that a structure can be connected to the sanitary sewer, official Board of Health orders are issued to the property owner(s) requiring the sanitary sewer connection within:

- 90 days if the sewage treatment system is inoperable or is within a declared Public Health Hazard Area.
- 2 years if the system is an operable discharging type system (e.g. sand filter).
- 5 years if the system is an operable non-discharging type system (e.g. leach lines).

### What permits do I need to connect to the sanitary sewer?

Permits are needed to:

- Tap the sanitary sewer; call the Metropolitan Sewer District at 513-244-1330.
- Abandon the STS and changeover any plumbing; call HCPH Plumbing Division at 513-946-7854.
- Open cut the roadway; contact the roadway maintenance department.

### What happens to my existing sewage treatment system?

HCPH will continue to inspect your sewage treatment system for proper operation and maintenance until it is properly abandoned and the structure is connected to the sanitary sewer.

Upon abandonment, your contractor is required to have the tank(s) pumped out by a registered sewage hauler. They are also required to collapse the top and one side of each tank, and then fill them with a solid inert material. Buried absorption fields or filter beds that do not contain large underground cavities can remain undisturbed on the property.

### What needs to be connected to the sanitary sewer?

All plumbing fixtures and drains must be connected to the sanitary sewer. This includes, but is not limited to:

- Sinks
- Toilets
- Showers
- Tubs
- Washing Machines
- Dishwashers
- Floor Drains
- Garage Drains

### Is the cost to connect my property to the sanitary sewer included in the sewer installation cost?

Connecting the building sewer from your property to the sanitary sewer is not included in the public improvement or assessment cost. This amount is the responsibility of the property owner.

### How much does it cost to connect my property to the sanitary sewer?

The private side cost varies greatly and is dependent upon many factors such as length of pipe, construction obstacles, depth, plumbing configurations, location or even the contractor. It is recommended that the property owner obtain several bids in order to compare pricing.

*For more information, call the Water Quality Division at (513) 946-7966.*



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Updated: 02/20/2013



**REQUIRED**

## Request for Availability of Sewer Service (RASS) Form

1. Download the RASS form to your computer.  
[http://www.msdbg.org/downloads/customer\\_care/permits\\_and\\_records/availability\\_form.pdf](http://www.msdbg.org/downloads/customer_care/permits_and_records/availability_form.pdf)
2. Open the RASS form in Adobe Reader or Adobe Pro
3. Fill in the RASS Form:
  - a. **Building Permit #** - If the number is known, fill it in. If not, skip this line.
  - b. **Street Address** ☐ Include House Number, Street Name and Suffix (Ave., Ct., Rd., St., etc.). **REQUIRED.**
  - c. **Municipality** ☐ use the pick box provided to choose what county/city/township/village of Hamilton County your project is in. **REQUIRED.**
  - d. **Auditor's Parcel Number** - Fill in the number. The numbers will follow this format: XXX-XXXX-XXXX or with the leading zero, 0XXX-XXXX-XXXX. To find a parcel number, use the link to the Hamilton County Auditor's website provided in the Proposed Development Site section for your use. If you click the box, it will automatically open up your default internet program to the Hamilton County Auditor's Website. **REQUIRED.**
  - e. **Current/prior land use** ☐ Explain what was/is there. Include capacity numbers. For example, if a house was (or still is) on the lot, then write 1 Single Family Residence. If it was/is a restaurant, then write down the number of seats that were in said restaurant. Look in the Proposed Development section for the numbers pertinent to the different selections.
  - f. **Proposed Renovation** ☐ Explain what will be built. Provide pertinent information that is not explained in the Proposed Development section. Zoning type is not pertinent, nor is the number of people living in a Single Family Residence.
  - g. **Proposed Development** ☐ Click on the pick box next to applicable choice(s) and fill in all corresponding information.
  - h. **Describe yourself** ☐ Click on Owner, Developer, Engineer, etc. to explain how you relate to the project.
  - i. **Fill in Contact Information** ☐ Person to receive the response letter from MSD
    - i. Printed Name - **REQUIRED**
    - ii. Mailing Address ☐ include House Number, Street Name and Suffix - **REQUIRED**
    - iii. Apt./Suite # - Apartment or Suite number, if applicable
    - iv. City/State/Zip ☐ **REQUIRED**
    - v. Date ☐ Date turned in to MSD
    - vi. Phone ☐ **REQUIRED**
    - vii. Email ☐ **REQUIRED**
  - j. **SUGGESTION:** Create a template with Contact Information filled out and save to your computer.
4. Save the file, preferably as the address of the request. **DO NOT PRINT TO PDF.**
5. Email file using the SUBMIT button if you are using Outlook. If not using Outlook, the SUBMIT button will NOT work.
6. If using another email program, you will have to save the file, **DO NOT PRINT TO PDF**, then email it as an attachment through your email service to [MSDAvailability@cincinnati-oh.gov](mailto:MSDAvailability@cincinnati-oh.gov).
7. Direct any questions or concerns to [MSDAvailability@cincinnati-oh.gov](mailto:MSDAvailability@cincinnati-oh.gov).

<p><b>Mail to:</b></p> <p><b>Attn:</b> Sewer Service Availability Desk Metropolitan Sewer District of Greater Cincinnati Project and Business Development 1600 Gest Street Cincinnati, Ohio 45204</p> <p><b>Email to:</b> <a href="mailto:MSDTapPermits@cincinnati-oh.gov">MSDTapPermits@cincinnati-oh.gov</a></p> <p><b>Or fax to:</b> (513) 244-1327</p>	<p><b>Request for Assessment Sewer Citizen Petition</b></p>	<p>METROPOLITAN SEWER DISTRICT of greater <b>CINCINNATI</b></p> 
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**Property to be served by the local public sewer improvement:**

Street Address: \_\_\_\_\_

Municipality / Township: \_\_\_\_\_

Auditor's Parcel Number for Property to be served by sewer: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

<b>Are you the owner of the property to be served by the local public sewer improvement?</b>		Yes <input type="checkbox"/>	No <input type="checkbox"/>
If you are not the owner of the property, describe your relationship to the property:			
<b>Does your property currently utilize a household sewage treatment system?</b>		Yes <input type="checkbox"/>	No <input type="checkbox"/>
<b>Has a general health district or board of health ordered you to replace your household sewage treatment system?</b>		Yes <input type="checkbox"/>	No <input type="checkbox"/>
<b>List addresses of other property owners in your neighborhood who have expressed a desire to obtain sewer service (submit additional pages if necessary):</b>			
Street Address:			
Street Address:			
<b>Would you like to receive more information about being a Petitioner for this project:</b>		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Signature:		Date:	
Print Name:		Phone 1:	
Mailing Address:		Phone 2:	
City:		State / Zip	
Email:			



# A GOOD CONNECTION

## GETTING LOCAL SEWER SERVICE

### Part I of IV: The Sewer Petition and What it Means

Public sewers are a good alternative to Household Sewage Treatment Systems. Public sewers provide homeowners with a reliable sewage disposal service that protects both public health and the environment. It is the policy of the Board of County Commissioners of Hamilton County, Ohio (the Board) to encourage the use of public sewers.

Where public sewers don't exist, property owners may request, or "petition," the Board to extend the sewer system to their properties. The Board will decide whether to extend sewer service based on several factors, including the location of the nearest accessible public sewer outfall, the level of interest from the property owners who would benefit from the sewer extension, and the cost of the sewer extension.

The purpose of this flyer is to (1) explain the local sewer petition process, (2) explain the property owner cost obligations, and (3) ask that you make a choice about having a public sewer.

#### WHAT IS A "SEWER PETITION"?

Public sewers that serve a neighborhood or a few streets are called "local sewers." If a local sewer does not exist, property owners may request construction of a local sewer by a petition process. The petition must contain the affirmative support of property owners who represent a majority of the properties to be served or "benefited" by the sewer. The Board of County Commissioners of Hamilton County has decided that majority support is the minimum level of interest required for the Board to proceed with a citizen petition for local sewer. A petition with less than majority support will not be acted upon. Your neighbor who is circulating the petition will ask for your signature and your choice: to support or oppose the request for sewer service.



#### WHAT ARE THE BENEFITS?

Public sewer service is reliable, cost effective and clean. With public sewer service, you will avoid the cost to operate, maintain and periodically replace your home sewage treatment system. Plus, the value of your property will likely be enhanced with public sewer service. By eliminating home sewage treatment systems, the quality of our environment will be generally improved.

#### WHAT DOES A LOCAL SEWER COST?

In order to pay for the local sewer, each property that benefits from the local sewer is assessed a charge. This "assessment" is equal to the total cost of the public sewer improvement divided by the number of properties that benefit from the project. Vacant properties that benefit from the local sewer are also required to pay their share.

As of February 9, 2005, total actual per-benefit costs in excess of \$12,000 will be funded from MSD unappropriated funds. Therefore, your cost for the public sewer improvement will not exceed \$12,000 per property.



A Home Sewage Treatment System (HSTS) Reimbursement Credit may apply to those systems meeting the requirements of the MSD Rules and Regulations. The HSTS Credit will effectively reduce the \$12,000 maximum assessment cost, commensurate with the eligible HSTS reimbursement credit amount.

Each property owner will incur other costs in addition to the assessment, including a tap-in fee and the cost to connect the building drain to the public sewer. The cost to connect your building drain to the public sewer depends upon a variety of factors such as length of pipe, the type of soil and construction obstacles.

## SEWER RATES & BILLING PRACTICES

If a local sewer is built for your neighborhood, you will be charged for use of the sewer system after your house is connected to the sewer. Sewer rates and bill pay practices are available at MSD's website: [www.msdbg.org/customer\\_care](http://www.msdbg.org/customer_care)



## FOR MORE INFO CONTACT

**MSD ENGINEERING  
CUSTOMER SERVICE  
(513)557-3594**

**[WWW.MSDGC.ORG](http://WWW.MSDGC.ORG)**

## HOW IS THE ASSESSMENT PAID?

If the local sewer is constructed, you may pay your property's sewer assessment within 30 days after the final assessment notification. Any amount not paid within 30 days of the final assessment notification will be financed on your behalf by the County. Your payments, including principal, interest and fees, will be due and payable with each of your property tax statements. The financing period is 20 years. If the property transfers during the financing period, there is no need to pay off the loan; future payments will run with the property. Also, there is no rebate of interest if you pay off early. You should consult with your tax advisor to determine the tax implications of these payment options.

## KEY POINTS TO REMEMBER

- A valid petition (majority support) does not guarantee that the local sewer will be built. The Board of County Commissioners may decide not to construct the sewer for a variety of reasons.
- Signing the petition does not mean that you will automatically be assessed \$12,000.
- You are not obligated to sign the petition.
- MSD does not determine which properties must connect to a local sewer; your General Health District is responsible for that decision.
- Only owners of the property may sign the petition form; a renter's signature is not valid.
- The Board of County Commissioners must hold a public hearing before it makes a final decision to build a local public sewer.

## WHAT'S NEXT?

Once the petition is submitted, MSD will confirm the petition's validity by polling all benefited property owners via US Mail. All petition results will be presented to the Board. Returned petitions that do not have a majority of support are not valid under Board policy. Should an outfall sewer not exist, MSD will present options to the Board for provision of trunk sewers. If the Board decides that a local public sewer improvement shall be designed, it will direct MSD to prepare plans, specifications, estimate of cost, and tentative assessments for the local sewer. After the project is designed, all property owners may participate in a public hearing prior to the Board determining whether or not to proceed to construction.

# A GOOD CONNECTION

## GETTING LOCAL SEWER SERVICE

### Part II of IV: Tentative Assessments & Public Hearing

The proposed assessment sewer for your street has been designed and the project is now moving into the public hearing/tentative assessment phase of development. The upcoming phase of the project includes a notice of tentative assessment, a public hearing and final legislation.



The first step in financing an assessment sewer is for the County Commissioners to approve “tentative assessments.” Tentative assessments are the individual estimated amounts that each benefited property will be charged as payment for their share of the local sewer. Benefited properties are determined by current usage. For example, single-family parcels will be charged one benefit. Vacant parcels may also be charged benefits if they are buildable and not subject to a land conservation easement. Tentative Assessments are not liens or final bills. Tentative assessments are the basis for the County Commissioners’ discussion with property owners about the local sewer project’s total cost. They are the starting point for taking comments from benefited property owners during a public hearing on the local sewer.

#### HOW ARE TENTATIVE ASSESSMENTS CALCULATED?

MSD calculates tentative assessments in the following manner:

1. Total project cost is estimated. The anticipated costs of all expenditures required to complete the project are estimated. These expenditures include design costs, easement purchases, construction costs and administrative expenses.
2. Total number of benefited properties are determined. Benefited properties are those properties to be served by the local sewer.
3. Total estimated cost is divided by the total number of benefited properties. The resulting number is the gross tentative assessment. This amount is the estimated actual cost of the sewer per benefit.

#### WHAT IS A TENTATIVE ASSESSMENT?

In Ohio, the process of converting existing homes from home sewage treatment systems (HSTS) to public sewer service is accomplished by construction of assessment sewers. Ohio law provides that assessment sewers are to be financed entirely, or in part, by the owners of properties that are benefited by the assessment sewer. In Hamilton County, the Board of County Commissioners has established a policy that says benefited property owners will pay no more than \$12,000 per benefited parcel towards the cost of the assessment sewer. MSD will provide a credit to each property that accounts for the remainder of project costs. The property owners’ share of the project costs are known as “assessments.” Assessments do not include the tap-in-fee or the cost to connect your building to the public sewer.

4. Assessment credits are determined. In order to comply with the County Commissioners' local sewer "cost ceiling" of \$12,000 per-benefit, MSD determines the amount of "assessment credits" to apply to each benefited property. If the gross tentative assessment exceeds the \$12,000 cost ceiling, MSD applies assessment credits to reduce the cost to each benefited property to \$12,000.
5. The Home Septic Treatment System Reimbursement Credit is applied to eligible properties.
6. Net Tentative Assessment amount is calculated. The gross tentative assessment amount, minus any credits, equals the net tentative assessment amount.

**In summary**, the tentative assessment amount is an estimate that is determined prior to construction of the sewer. Final assessment amounts will be determined after construction of the project and will be based on actual costs. Your cost for the public sewer improvement will not exceed \$12,000 per benefited property.



## FOR MORE INFO CONTACT

MSD ENGINEERING  
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(513)557-3594

[WWW.MSDGC.ORG](http://WWW.MSDGC.ORG)

## WHAT IS THE PUBLIC HEARING?

Ohio law requires the County Commissioners to hold a public hearing for any sewer project that is to be funded in whole or in part by the benefited property owners through assessments. MSD will notify you by certified mail of the hearing date, time and location. The public hearing is your opportunity to express your opinion or ask questions regarding the proposed assessment sewer.

Once the Commissioners close the public hearing, each benefited property owner has five calendar days in which to submit in writing any objections to the local sewer project. The Commissioners cannot take legislative action on the sewer project during these five days.

**In summary**, the public hearing is the opportunity for all benefited property owners to express their opinion on the local sewer project directly to County Commissioners. Ohio law requires the public hearing as a way of providing all benefited property owners equal opportunity to comment (i.e., "due process") before they can be assessed.

## FINAL LEGISLATION

After the public hearing and the five-day waiting period, the County Commissioners must address and resolve any objections to the project filed by benefited property owners. This is a necessary and required action by the Commissioners before they decide whether or not the proposed local sewer project should be built .

In order for the Commissioners to build the local sewer, they must adopt three final pieces of legislation: a Resolution to Proceed, a Resolution to Appropriate Funds, and a Resolution to Advertise and Bid the local sewer construction project.







# A GOOD CONNECTION

## GETTING LOCAL SEWER SERVICE

### Part III of IV: Building the Sewer

The Metropolitan Sewer District of Greater Cincinnati (MSD) is pleased to announce that the local sanitary sewer project for your street has entered the construction phase. A notice from our contractor will be placed on your door that will provide a specific starting date and other useful information.

The following information is provided to you in order to explain some basic information about the upcoming sewer installation project for your area.

#### BIDDING AND AWARDING A CONTRACT

Before local sewer construction can begin, MSD must bid and award a construction contract. These contracts are public improvements, paid by public funds, paying prevailing wages and covered by special assessment bonds when the job is complete. MSD must follow strict bidding laws. Awards are made based on “lowest and best” bid.

#### SEWER CONSTRUCTION BEGINS

MSD selects a contractor to install the sewer and to restore all disturbed areas after sewer installation is complete. The contractor must notify residents when actual construction is expected to begin. Additionally, the contractor must submit a traffic control plan, showing when traffic will be restricted. Some projects require street closures and detour signs to be posted. The contractor tries to maintain access to individual driveways; however, sometimes a driveway must be blocked overnight.

Activity at the site begins when our contractor brings the needed equipment and materials to the project site. Prior to beginning trench excavation, the contractor will remove trees and brush to clear a path for the sewer trenching operation.

#### DESCRIPTION OF THE PUBLIC SEWER IMPROVEMENT

The public sewer improvement includes a sewer pipe, manholes and a service lateral for each benefited property. The public sewer is located underground and is usually 8 inches in diameter. The sewer depth can be as shallow as 5 feet and can be as deep as 40 feet in some extreme cases. The service lateral extends from the mainline sewer to the limit of the right-of-way or the limit of the permanent sewer easement. MSD’s contractor or the MSD construction representative will verify with you the preferred location of the service lateral for your property. Our contractor typically installs the sewer pipe by digging a trench with a backhoe. There are instances when it is necessary to install the sewer by use of trenchless technologies such as tunneling, drilling or boring & jacking. Trenchless methods generally require a pit at each end of the sewer segment.





## CONSIDERATIONS DURING CONSTRUCTION

We understand that construction of a sewer often results in temporary inconvenience to nearby residents. MSD and our contractor will do what we can to minimize any disruption to your normal routine. It is MSD's job to accommodate your needs and to get the sewer installed in the most efficient way possible.

If there are construction problems, please first try to speak to the MSD construction representative at the site. Our representative will strive to resolve your concerns and issues as soon as possible. You may also call MSD's Engineering Customer Service at (513) 557 - 3594.

## TAPPING THE SEWER

MSD installs a 6-inch diameter sewer lateral for each benefited property. The lateral begins at the mainline sewer and terminates at your property line.

After the sewer is installed, each benefited property will receive a notice from their local health district that will indicate when their home must be connected to the sewer.



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[WWW.MSDGC.ORG](http://WWW.MSDGC.ORG)

Each property owner must solicit bids and hire a plumber to connect the building drain to the sewer lateral. Plumbers doing this work must be certified with MSD as "sewer tappers." The list of these certified tappers is available on the MSD website at [www.msdbg.org](http://www.msdbg.org). Costs vary, but if neighbors secure one contractor to perform several taps, costs are cheaper.

**Please be advised!** The sewer tappers list is NOT an endorsement or recommendation of any particular company or individual listed! MSD recommends that you follow the same steps and precautions you would take for any home improvement. Some of these steps might include:

- Obtain more than one bid for the work;
- Ask for references and check them out;
- Check with an agency such as the Better Business Bureau;
- Get a written contract and make sure it covers all the work that is to be done.
- Limit the amount of any down payment.

## NEXT STEPS

Information regarding the final assessment process will be provided to you after sewer construction is complete.

**We appreciate your cooperation!**





# A GOOD CONNECTION

## GETTING LOCAL SEWER SERVICE

### Part IV of IV: Paying Your Sewer Assessment

The owner of each property that is benefited by an assessment sewer is required to pay their share of the cost of the sewer. Prior to construction of the sewer, MSD notified each property owner of the amount of their tentative assessment. The tentative assessment amount was based on the estimated cost of construction.

After an assessment sewer is completed and accepted for use by MSD, the final assessment amount is computed based on the actual cost of the sewer construction. Current MSD policy provides that each benefited parcel, regardless of size or current use, receive credits such that the net final assessment is not greater than \$12,000 per benefited parcel.

As of April 2, 2014, an HSTS Reimbursement Credit was adopted that will reduce the net final assessment further for certain eligible properties. The HSTS Reimbursement Credit will apply only to those properties that have installed a household sewage treatment system in accordance with provisions of Hamilton County Public Health regulations enacted on December 10, 2004 and that satisfy other requirements.

MSD pays for all project costs in excess of the net final assessments.

#### FINAL ASSESSMENTS: THE LAST PIECE OF THE LOCAL SEWER PUZZLE

After the final cost of the sewer is known, MSD will request the Board of County Commissioners to adopt legislation that will allow MSD to charge your property for its share of the cost of the sewer.

The County Commissioners must confirm final assessments and provide for two things: (1) that the property owner may pay, in full or part, their share of the sewer's cost as determined by MSD within 30 days of notice, and (2) that any unpaid balance plus finance charges will be placed on the property tax duplicates of the property owners that have not paid, either in full or in part.

#### WHEN DO I PAY?

Typically, MSD will ask the County Commissioners to certify final assessments during the month of May for all local sewer projects completed during the preceding year. Immediately after certification of the final assessments, MSD mails a bill for payment of the assessment to each benefited property owner. Property owners then have 30 days to pay as much or as little of the assessment as they choose. After the 30-day period, any unpaid balances will be placed on property taxes by the 2nd Monday in September. This latter date is mandated by law.

MSD will notify you when the Board of County Commissioners have adopted and certified final assessments. ***This notice will be sent to you via certified mail and is your official notice.***





## HOW CAN I PAY?

Sewer assessments can be paid in one of three ways:

1. **Full payment within 30 days of notice.** If you pay the full final assessment amount up front, there will be no interest charges. Your assessment obligation is discharged with this payment.
2. **Partial payment within 30 days of notice and remainder financed over a 20-year term with interest.** You may pay any portion of the final assessment amount upfront and the unpaid balance will be placed on the property tax duplicate and collected with interest over 20 years.
3. **Finance entire amount over a 20-year term, with interest.** This option allows you to avoid any immediate payment for the assessment. Payments for any amount to be financed will be collected with your property tax payments. Hamilton County property taxes are collected twice a year, billed in December and June.

There are two important differences between the terms of the 20-year payment option and common consumer loans:

1. Prepayment of all the principal during the 20-year term **DOES NOT** relieve you of your obligation to pay all of the interest. Your obligation is to pay the entire principal **AND** the entire 20 years of interest.
2. If your property is transferred during the 20-year pay-back period, you are **NOT** required to payoff the remaining balance. The assessment will run with the property.

If you choose to finance all or a portion of the final assessment, the interest rate to be charged will not be known until the County Commissioners sell special assessment bonds to pay for the project.



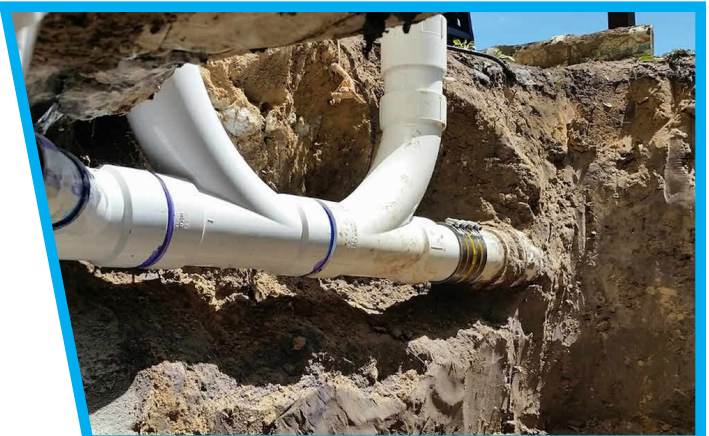
## FINANCIAL ASSISTANCE

MSD provides financial assistance in the form of Assessment Credits. MSD Assessment Credits lower your overall assessment cost to no more than \$12,000 per benefited parcel.

A Home Sewage Treatment System (HSTS) Reimbursement Credit may apply to those systems meeting the requirements of the MSD Rules and Regulations. The HSTS Credit will effectively reduce the \$12,000 maximum assessment cost, commensurate with the eligible HSTS reimbursement credit amount.

Hamilton County Home Improvement Program (HIP) allows homeowners to borrow money to install sewer laterals at interest rates 3% below the lowest rate a bank would normally offer. Call the HIP representative at (513) 946-4459.

Hamilton County & Ohio EPA WPCLF Grant program may provide moneys to be used for sewer connection costs for failing sewage treatment systems. Call Hamilton County Public Health at (513) 946-7800.



### FOR MORE INFO CONTACT

MSD ENGINEERING  
CUSTOMER SERVICE  
(513)557-3594

[WWW.MSDGC.ORG](http://WWW.MSDGC.ORG)

# 2022 Sewer Rate Information

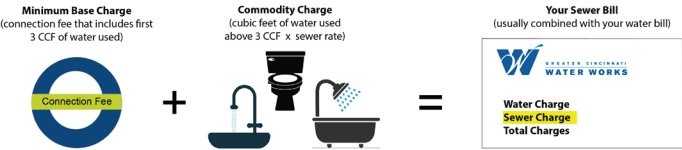
## What’s New in 2022?

- MSD continues to offer a *senior discount program* for low-income homeowners. More info at [msdgc.org/CAP](http://msdgc.org/CAP).
- No sewer rate increase* for the 7th year in a row. An average single-family household spends about \$610 a year on sewer services.

## Your Sewer Bill

Sewer bills are based on the amount of water used by a property. Your sewer bill consists of two separate charges:<sup>1</sup>

- Minimum base charge
- Commodity charge



## Minimum Base Charge:

The minimum base charge is a fixed charge for being connected to the public sewer system. It is applied to all customers based on the size of the property’s water meter and includes the first 3 CCF<sup>2</sup> of water used each month, based on 30 days<sup>3</sup> of service. Most residential customers are charged \$39.12 per month.

Meter Size (inches)	Minimum Base Charge	Portion of Charge Covering OM&R <sup>4</sup>
5/8	\$ 39.12	\$ 7.27
3/4	\$ 50.44	\$ 9.14
1	\$ 69.15	\$ 12.86
1 1/2	\$ 117.50	\$ 21.36
2	\$ 166.44	\$ 30.12
3	\$ 427.16	\$ 67.58
4	\$ 707.43	\$ 112.00
6	\$ 1,379.72	\$ 220.47
8	\$ 2,085.59	\$ 328.94
10	\$ 2,786.92	\$ 439.99
12	\$ 3,217.75	\$ 509.19

## Commodity Charge Rates:

The commodity charge is a water usage charge applied to all customers who use more than 3 CCF of water each month. This charge is calculated by multiplying the CCF of water used above 3 CCF by the established sewer rate (see table).

*Winter Period<sup>5</sup> for Residential Customers:* From Jan-March, the commodity charge is based on the amount of water used. For April-Dec, the charge is based on the lesser of either (a) amount of water used that month **or** (b) average amount of water used from Jan-Mar. This average is known as the “winter period.” Commercial and industrial customers do not have a winter period.

First 3 CCF Included in the minimum base charge		
	Sewer Rate	Portion of Rate Covering OM&R <sup>3</sup>
Greater than 3 CCF, up to 50 CCF	\$5.879/ CCF	\$2.462/ CCF
	Sewer Rate	Portion of Rate Covering OM&R <sup>3</sup>
More than 50 CCF	\$4.701/ CCF	\$2.462/ CCF

## Notes:

<sup>1</sup> Commercial/industrial customers may be charged additional fees to cover the costs associated with their discharges.

<sup>2</sup> 1 CCF = 100 cubic feet or 748 gallons

<sup>3</sup> If > or < than 30 days of service, the amount is prorated.

<sup>4</sup> Public Law 95-217 requires public notice of the operation, maintenance, and replacement (OM&R) cost portion of the minimum base charge and sewer rate. By definition, replacement costs are those necessary to extend the life of facilities and not total replacement of the entire system.

<sup>5</sup> Many residential customers (single and two-family homes) use greater amounts of water during the warm, summer months (e.g., watering lawns, gardening), much of which never enters the sewer system. Since sewer bills are based on water usage, MSD uses a customer’s average water consumption during January, February, and March of each year as the maximum water usage to calculate the monthly commodity charge for the next 9 months (April-December). A new winter period maximum water consumption rate is established each year during the winter period.



# My Septic System Failed, What Do I Do Next?

When dealing with a failure of your existing household sewage treatment system, there may be options available to you. These options fall into 3 categories:

- 1) Repair:** This is defined as the act of fixing or replacing substandard or damaged devices to restore proper treatment, or to restore a damaged or broken component to proper working condition. There are a variety of repairs available for different, unique situations. When a system has failed, repairs may or may not bring the system back into compliance by restoring treatment. If a registered and qualified service provider has a viable plan to make repairs, they may propose this to the Health District for review to determine if the plan complies with all state and local codes, and most importantly, if the repair will be more cost effective for the homeowner in supporting the operation of the existing system.
- 2) Replacement:** This is defined as the installation of a new sewage treatment system to replace an existing system. This also includes the replacement or relocation of a soil absorption components such as leach lines or a sand filter. Replacements are the next option when connection to sewer is unavailable and a sewage treatment system has failed and cannot be repaired. Replacements include the design and installation of a new sewage treatment system which is compliant with state and local codes.
- 3) Incremental Repair/Replacement:** This is defined as the creation of a plan with the board of health to create steps toward eliminating the nuisance caused by a failing sewage treatment system. For this plan, the owner of the system works in conjunction with the board of health to outline a phased approach by which to alter the system through a registered and qualified service provider. Throughout the plan, this service provider proposes alterations, which each require a permit from the board of health, that will assist in restoring proper treatment to the wastewater.

When considering these options, there are important factors to consider:

- i What is the most effective solution?
- i What is the most cost conscious solution?
- i What system can be used as a replacement?

Our personnel are ready to help assist you through this process so that you are presented with all the information needed to make the best decision for you and your sewage needs.



## HAMILTON COUNTY PUBLIC HEALTH

PREVENT. PROMOTE. PROTECT.

250 William Howard Taft Road, 2nd Floor  
Cincinnati, OH 45219

Phone 513.946.7800  
Fax 513.946.7890

[hamiltoncountyhealth.org](http://hamiltoncountyhealth.org)

Dear Property Owner:

Please utilize the following step-by-step procedures to start the process of properly replacing your sewage treatment system with Hamilton County Public Health (HCPH).

1. Please complete the area between the dashed lines of the application, sign and date above the lower dashed line. Included in this letter, you will find more detailed information on completing these sections. Return the application along with the application fee (\$625 for a household sewage treatment system or \$875 for a small flow onsite sewage treatment system) to this office: Hamilton County Public Health, 250 William Howard Taft Road, 2nd Floor, Cincinnati OH, 45219. You will receive a completed copy of the application and design upon approval of the design by HCPH. Please note that the application fee does not cover any invoice(s) that have been issued for the existing system for an inspection by HCPH. Please make sure to pay any outstanding invoices.
2. Along with the completed application you will need to contact a sewage treatment system designer to evaluate the options that may be available for your property. You will need to submit the STS designer's design proposal and a complete site and soil report for your property in compliance with all codes. For your convenience a list of sewage treatment system designers known by this office is included on the next page. This list **does not** constitute a recommendation or endorsement for any company. Always check references and sites like the Better Business Bureau (BBB) before hiring any company.  
**Make sure to submit and complete all items on the attached checklist with your application.**
3. After the replacement evaluation is completed, the homeowner will be mailed a completed copy of the approved Application to Construct or Replace. This should be used to obtain bids for the system replacement. Most installers will want to see a copy of the approved Application to Construct or Replace prior to bidding the job. When the application is approved by the Registered Sanitarian from HCPH, the property owner with a failing STS will be given 120 days from the date of the approval to complete the replacement. The list of registered septic contractors is provided for your convenience. Hamilton County Public Health **does not** recommend or endorse any company and or individual that is registered and bonded with HCPH. If you wish to install the system yourself, you may do so by passing the state exam and obtaining continuing education credits. Please call 946-7800 for further information and paperwork required to register as an installer.
4. Your chosen contractor must obtain a Permit-To-Install the sewage treatment system prior to commencing construction. After the sewage treatment system is installed, but before it is covered, an open trench construction inspection will be conducted by a Registered Sanitarian to ensure proper system installation. When the Health District verifies the system to be properly installed, it will be approved and a green approval sticker containing the inspector's signature and title will be issued. These approval stickers are usually placed on the inside of the control panel. Prior to providing final payment to your contractor, it is highly recommend that should ask to see the approval sticker to assure your system has been approved.

# Sewage Treatment System Designers

## Area Wide Septic & Service

Perry Shoemaker

[areawideseptic2@outlook.com](mailto:areawideseptic2@outlook.com)

(937) 313-8287

1170 Thorpe Rd  
Sabina, OH 45169

## SCS Engineers

Dan Brennan

[dbrennan@scsengineers.com](mailto:dbrennan@scsengineers.com)

(513) 826-4174

Jake Dankert

[jdankert@scsengineers.com](mailto:jdankert@scsengineers.com)

(513) 826-4166

625 Eden Park Dr, Suite 425  
Cincinnati, OH 45202

## Star Septic

David Dumford

[starseptics@gmail.com](mailto:starseptics@gmail.com)

(513) 334-9632

18251 Gauche Rd  
Fayetteville, OH 45118



**HAMILTON COUNTY  
PUBLIC HEALTH**

PREVENT. PROMOTE. PROTECT.

250 William Howard Taft Road

Cincinnati, OH 45219

Phone: 513.946.7800 Fax: 513.946.7890

[hcph.org](http://hcph.org)

## Evans Engineering

Jonathan Evans

[jevans@evans-eng.net](mailto:jevans@evans-eng.net)

(513) 321-2168

Coleman Needles

[cneedles@evans-eng.net](mailto:cneedles@evans-eng.net)

(859) 740-8958

4240 Airport Rd, Suite 108  
Cincinnati, OH 45226

## Cindaco Designs

Mike Morris

[mmorris@cindaco.com](mailto:mmorris@cindaco.com)

(513) 909-4768

PO Box 19684  
Cincinnati, OH 45219

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# Soil/Site Evaluators

## Clear Creek Environmental

Dan Michael

[dan@clearcreekseptic.com](mailto:dan@clearcreekseptic.com)

(513) 934-1040

620 North Broadway St  
Lebanon, OH 45036

\*THIS LIST DOES NOT CONSTITUTE AN  
ENDORSEMENT OR RECOMMENDATION FOR  
ANY ONE DESIGNER OR SOIL EVALUATOR.  
Other Site/Soil Evaluators or Sewage  
Treatment System Designers may exist.  
However, this list represents people that are  
familiar with the requirements of the State of  
Ohio and additional policies and standards of  
Hamilton County Public Health. Always check  
references and websites like the Better  
Business Bureau before hiring any company.

The following is a breakdown to assist you with filling out the application:

New or Replacement

- i New installation is for a structure being built that needs a sewage treatment system (STS)
- i Replacement is for a pre-existing structure that the sewage treatment system requires replacement

System To Serve

- i Single family residence, duplex (two-family), or triplex (three-family) dwelling.
- i Small-flow -other

Address of Construction Site

- i The construction site is the address where the sewage treatment system is to be installed.

Tax Parcel # and Lot Size

- i This information can be located on your tax bill or you may wish to search your property information via the internet at [www.hamiltoncountyauditor.org](http://www.hamiltoncountyauditor.org).

Political Subdivision

- i A political subdivision is a township, village, or contracting city within Hamilton County. (Example: Colerain Township, Village of Fairfax, City of Montgomery)

Number of Bedrooms (Residential)

- i Indicate the number of all bedrooms, not the number of bedrooms being utilized.

Number of People in Structure

- i List the total number of the people that reside within the dwelling. For a commercial facility, list the number of people the system is designed for.

Monthly Water Usage (gallons) (Commercial/Residential)

- i This information can be obtained by contacting your local water supplier. In the event that you have hauled water, total your previous year of deliveries and divide that by 12 or the number of months you are totaling.

Water Supply

- i Public (water supplier) would be to whom you pay for your public water service. This is not the same as if you have a private water system.
- i For private water, please mark all that apply to your property.

Plumbing Under Basement, Ejector Pit, Hung Sewer

- i Plumbing under basement is when the waste line exiting the building is under the basement floor.
- i An ejector pit is a sump pump device that pumps sewage up to the building sewer in order for the waste to exit the building at a higher elevation.
- i Hung sewer is when the waste line exits the building above the basement floor and is usually “hung” from the underside of the first floor joists.

Water Softener, Garbage Disposal, Whirlpool Style Tub, High Capacity Shower, or Other Large Water Usage Fixtures

- i Please mark or fill in all that apply.

Should you require additional information, please contact our office at 946-7800 between 7:30 a.m. through 4:00 p.m.



All items under Ohio Administrative Code 3701-29 must be completed when the application is submitted, or we are required to return all items to the applicant. Please check off each item as they are implemented into the plans. If a particular item is not applicable put N/A. Return this completed check off list with your site plans.

**Design of Septic System:**

- \_\_\_\_\_ Detailed soil report with site drawing meeting the requirements of OAC 3701-29-07 and a septic system design from a qualified septic system designer/engineer. This design should include the following items:
- \_\_\_\_\_ One copy (1) of the soil morphology indicating limiting conditions
- \_\_\_\_\_ Four copies (4) of a site plan with scaled drawings of the system on the lot with soil sampling locations shown
- \_\_\_\_\_ Four copies (4) of the elevation plan with system components that are proposed for installation
- \_\_\_\_\_ Four copies (4) of the detailed onsite treatment system components to be used in the installation
- \_\_\_\_\_ One copy (1) of system design calculations for the home based on soil/site conditions
- \_\_\_\_\_ Other items described in OAC 3701-29-10.

**Site Plan:**

- \_\_\_\_\_ Scale should be one-inch equals fifty-feet or less. (Ex. 1 to 40, 1 to 30 etc).
- \_\_\_\_\_ Preparer's name, address, and telephone number.
- \_\_\_\_\_ Scale, north arrow, and date of drawing.
- \_\_\_\_\_ Street address is required. NO LOT NUMBERS.
- \_\_\_\_\_ Subdivision name or owner's name, address and telephone number. Property boundaries with courses and distances.
- \_\_\_\_\_ Road right-of-way and easement areas with boundary descriptions.
- \_\_\_\_\_ Topographical contours at two (2) foot intervals for lots having average slope of twenty-five (25) percent or less.
- \_\_\_\_\_ Location of the existing or proposed house, accessory buildings, driveways and all sewage system components and replacement area on the subject lot. Photocopies of all recorded easements, plus easement must be drawn on plot plan.
- \_\_\_\_\_ Location of all bodies of water, streams, ditches, sewers, drain tile, existing and proposed potable water supply sources and water service lines on this or adjacent lot within 150 feet of the proposed subdivision.

**At the home/building site:**

- \_\_\_\_\_ When surveyed, all property corners of each proposed lot shall be field staked prior to the submission of final individual site plans.
- \_\_\_\_\_ Septic system location, house location, and any other building structures will need to be flagged at the site.
- \_\_\_\_\_ Septic system location needs to be caution taped off to keep undisturbed.

**Other documents for submission:**

- \_\_\_\_\_ If the property has public water, only four (4) copies are necessary. If there will be a private water system on the property, five (5) copies of the plot plan and a private water application fee are required.
- \_\_\_\_\_ Copy of the recorded deed.
- \_\_\_\_\_ One full set of floor plans for the proposed home/building must be submitted with application and above items.
- \_\_\_\_\_ Completed application and the application fee of \$450 for household systems or \$650 for small flow systems.

# Application to Construct or Replace a Sewage Treatment System



**HAMILTON COUNTY  
PUBLIC HEALTH**

250 William Howard Taft Road, 2nd Floor  
Cincinnati, OH 45219 • 513.946.7800  
hamiltoncountyhealth.org

Fee Paid: \_\_\_\_\_

Date: \_\_\_\_\_

Receipt #: \_\_\_\_\_

Permit #: \_\_\_\_\_

Received by: \_\_\_\_\_

<input type="checkbox"/> New Construction	<input type="checkbox"/> Household Sewage Treatment System (HSTS) - \$625.00
<input type="checkbox"/> Replacement System <small>Plumbing Permit Required if All Waste-Water Not Directed to Septic System</small>	<input type="checkbox"/> Small-flow Onsite Sewage Treatment System (SFOSTS) - \$875.00

Address of Construction Site: \_\_\_\_\_ Lot Size: \_\_\_\_\_ (acres)

Political Subdivision: \_\_\_\_\_ Tax Parcel ID: \_\_\_\_\_

**Applicant:**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Mailing address Phone

\_\_\_\_\_  
City State Zip Email

**Owner:**

(If different from above)

\_\_\_\_\_  
Name

\_\_\_\_\_  
Mailing address Phone

\_\_\_\_\_  
City State Zip Email

**System to Serve:** ☐ Single Family ☐ Duplex ☐ Triplex ☐ Other: \_\_\_\_\_

**Number of Bedrooms:** \_\_\_\_\_ **Number of People in Structure:** \_\_\_\_\_ **Monthly Water Usage:** \_\_\_\_\_

**Water Supply:** ☐ Public (Water Supplier: \_\_\_\_\_) ☐ Private: Well / Cistern / Hauled Water  
(Check One) (Circle One)

**Check one:** ☐ Plumbing Under Basement ☐ Ejector Pit ☐ Hung Sewer

**Present in the Structure** (check all that apply):

☐ Water Softener ☐ Garbage Disposal ☐ Whirlpool Style Tub ☐ High Capacity Shower

☐ Other Large Water Usage Fixture (Specify): \_\_\_\_\_

By my signature below, I certify that I have read, I understand, and I agree to comply with the conditions set forth on the reverse hereof.

\_\_\_\_\_  
Owner/Owner's Agent Signature

\_\_\_\_\_  
Date

For office use only

Field Inspection By: \_\_\_\_\_ Date: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

**This Application Expires Five Years From The Approved By Date. Replacement Systems Must Be Installed Within 120 Days of Approval Date.**

11/22/2023

OWNER MUST READ AND INDICATE AGREEMENT BY SIGNING ON THE FRONT:

I understand that any approval granted on the basis of false or inaccurate information is automatically revoked. Approval is similarly revoked for my failure to comply with any requirements or conditions herein or any additional requirements of the Hamilton County Board of Health or the State of Ohio.

I agree to have a Registered Installer obtain a Sewage Treatment System (STS) Installation Permit prior to starting any work on a STS installation. I also understand that a repair or alteration of a STS requires a permit from the Hamilton County Board of Health. I understand that **THIS APPLICATION EXPIRES 5 YEARS FROM THE APPROVED DATE**, and no installation permit will be issued after that date. If the application expires, I must re-apply for a new permit and pay another application fee.

I understand that if the system has electrical components, a permit and inspection approval must be obtained from the Local Building Inspection Department prior to issuance of the final STS installation approval and operational permit.

I understand that the STS and all components contained within it require routine maintenance. Therefore, I agree to operate, maintain, and service the system and its components in accordance with any and all rules or requirements of the Hamilton County Board of Health and the State of Ohio. Depending on the STS type, a operation, monitoring, maintenance and service contract with a Registered Service Provider may be required before final system installation approval is granted and the STS is placed into operation.

All STS require an Operational Permit from the Hamilton County General Health District. I understand that Health District Personnel will monitor this STS as often as necessary to obtain information and to verify that the system is functioning in a satisfactory manner so that an Operation Permit may be issued. I understand that actions of Health District inspectors, engaged in the evaluation and determination of measures required for the siting, design, installation, and monitoring of this STS, shall in no way be taken as guarantee that the system will function in a satisfactory manner for any given period of time, or that the Hamilton County General Health District or any of its agents or employees assume any liability for damages, consequential or direct, which are caused, or which may be caused by a malfunction of the STS.

In the event that the STS fails to function in a satisfactory manner, as determined by the Hamilton County General Health District, I will take immediate action to correct any malfunctions, ensuring that the system functions in a satisfactory manner.

**I WILL NOT OCCUPY A NEW DWELLING OR STRUCTURE OR ALLOW OCCUPANCY UNTIL ALL FINAL TESTS AND INSPECTIONS HAVE BEEN CONDUCTED AND APPROVED ON INTERIOR AND EXTERIOR PLUMBING AND THE SEWAGE TREATMENT SYSTEM.**

I hereby certify that the proposed work is authorized by the owner of record. If I am signing this application as the owner's authorized agent, we have agreed to conform to all applicable laws of the State of Ohio and the regulations of the Hamilton County General Health District.

# Homeowner Design Checklist

## Needed Items prior to the designer visiting your property

- \_\_\_ Call Oups that 811-OUPS (Ohio Utilities Protection Service) to mark all of the utilities on your property prior to designer coming to the property.
- \_\_\_ All property lines/easements/right-of-ways should be clearly marked at the property. Get copies of your deed, known easement paperwork, and plot plan for the designer. A designer will need to know where the property lines/easements/right of ways are located to determine what areas are available to site the replacement system.
- \_\_\_ With Flags or Paint, mark the known location of the existing system, Tank location, piping, leach lines, sand filter, discharge location
- \_\_\_ Water usage records are available for designer's review if tied into public water.
- \_\_\_ Number of occupants are available for designer's as well as any special medications used in the household. Discuss future needs for occupants.
- \_\_\_ Special considerations for the STS design discussed with the designer, (future desired home additions, pools, ponds, earthworks projects, geothermal, outbuildings, etc)
- \_\_\_ Mark and disclose to the designer the location of any private water systems on the property (Wells, Cisterns, Hauled water storage tanks) or Geothermal Systems
- \_\_\_ Check your interior plumbing, downspouts, and outside drains and determine where they drain to. Have them Video Inspected/Located. Clear water sources (downspouts, outside stairwell drains, clear water sump pumps) are not allowed to be tied into the septic system. All of the wastewater generated from the structure is required to be connected into the septic system including inside/basement floor drains and the laundry discharge. If interior plumbing work is required, a plumbing permit is needed through Hamilton County Public Health's (HCPH) Plumbing Division (946-7854).
- \_\_\_ If there is a separate structure on the property with plumbing, verify where this plumbing is tied into and notify the designer.

## Questions to ask Designer when they visit your property

- \_\_\_ Ask the designer to go over the soil report with you. Ask if the soils, topography, and space on your property can accommodate a soil absorption system.
- \_\_\_ Ask the designer to explain different options regarding treatment and dispersal on the property.
- \_\_\_ Ask about how to avoid a discharging system or how to minimize needed sampling requirements (i.e. use flow equalization, tertiary treatment or partial soil absorption). SEE NPDES DISCHARGE FAQ SHEET SAMPLING
- \_\_\_ Ask about estimated costs of installation and ongoing operation, monitoring and maintenance costs.



- \_\_\_ Ask about known problems with the system being proposed.
- \_\_\_ Ask about manufacturer warranties.
- \_\_\_ Ask about additional costs associated with design changes.
- \_\_\_ If an NPDES discharging system is being proposed, ask the designer to explain the requirements of this permit including the required sampling and telemetry/pump lock out requirements.
- \_\_\_ Ask about Telemetry vs. pump lockout options.
- \_\_\_ Systems are typically designed at code minimums, ask about upsizing tanks, pretreatment and absorption systems.
- \_\_\_ It is HIGHLY recommended that you demand water tightness testing be verified by the health district and be part of the STS design.

Recommendations on what to do once the design has been submitted to Hamilton County Public Health

It is recommended the homeowner stay involved throughout the design review process.

Soil and STS design flags and or markings must be maintained in place by the owner until the STS is installed

Once Design has been approved by Hamilton County

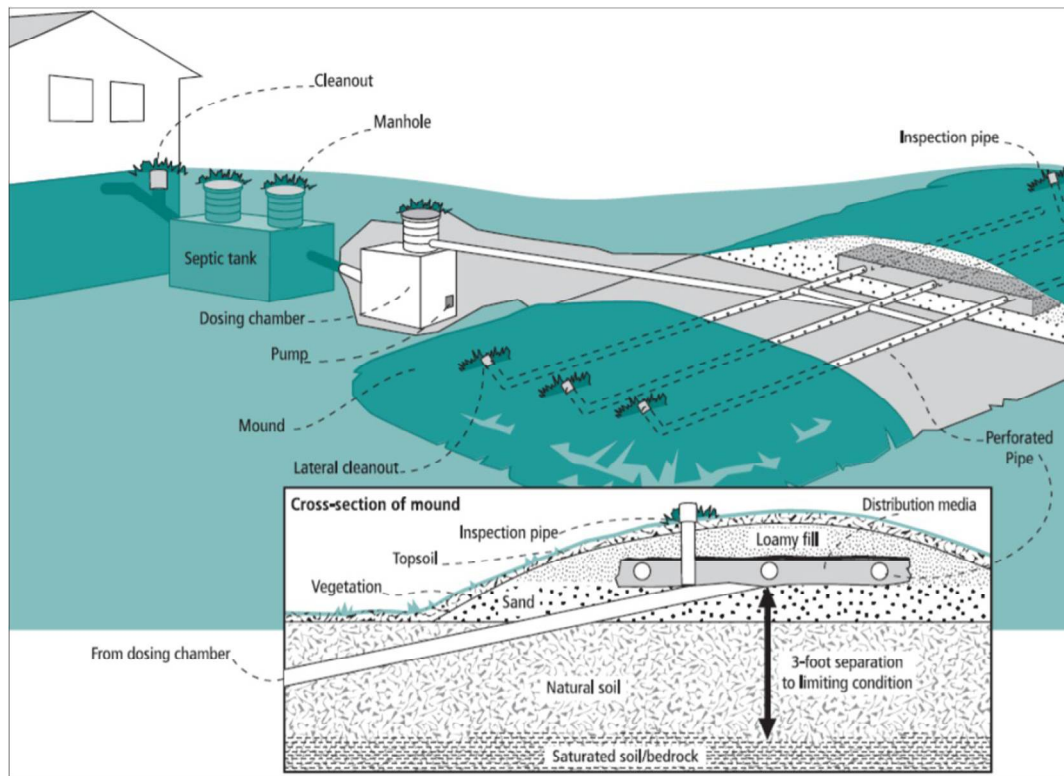
Within 120 days after the design has been approved by Hamilton County, you will need to hire a registered sewage treatment system installer to complete the installation of the replacement system.

It is recommended you obtain a minimum of three quotes. Be advised that soil absorption systems can only be installed during the dryer time of year, typically between May-October. Contractors book up quickly, so it is recommended you contact them shortly after you receive the approved design in the mail.

## Septic Tank or Pretreatment Unit to Sand Mound

### Basic Design

A septic tank (or pretreatment unit) and sand mound system is a technology used for treating and disposing of wastewater in areas unsuitable for conventional septic tank soil absorption systems. Mounds are pressure-dosed sand filters placed above, and discharging directly to, the natural soil. Their main purpose is to provide additional treatment to the wastewater before it enters the natural environment. Treatment occurs through physical, biological, and chemical means as the wastewater filters down through the sand and the natural soil. Mound systems are designed to overcome site restrictions such as slow or fast permeability of soils, shallow soil over bedrock, and a perched seasonal water table through elevation of the system with sand. The three components of a mound system are a septic tank or pretreatment unit(s), dosing chamber, and the elevated mound. (See figure below for an illustration.) Some mound systems are designed with a pretreatment unit(s) to reduce waste strength and/or to reduce the mound sizing (see Pretreatment to soil absorption page). The dosing chamber follows the septic tank or pretreatment component and contains a pump, which pressure doses the effluent to evenly distribute the wastewater over the infiltration surface of the mound. The mound is constructed with a soil cover that can support vegetation, and a fabric covered coarse gravel aggregate or gravelless product in which a network of small diameter perforated pipe is placed. The network of perforated pipe is designed to distribute the effluent evenly through the gravel from where it trickles down to the sand media and hence, into the plowed basal area (natural soil). The controls are set for a specific pumping sequence, or timed dosing, which allows timed breaks between doses and increased time for the soil to absorb the effluent. The pumping chamber is usually sized to provide excess storage of at least one day's capacity in case there is a power failure or pump malfunction.



### Advantages

Mound systems allow the development of the use of some sites that would otherwise be unsuitable for in-ground or at-grade onsite systems due to seasonal perched water or other site limitations. The natural soil utilized in a mound system is the upper most horizon, which is typically the most permeable. A mound system does not have a direct discharge to the ground, streams, or other bodies of water; and construction damage is minimized since there is little excavation required in the mound area.

### Disadvantages

Cost is somewhat higher compared to a conventional leach line system due to specialized construction, materials and transportation costs, and possible engineering design fees. Since there is usually limited usable soil available at mound system sites, with any soil based system extreme care must be taken not to damage this layer with construction equipment; the size and shape of mound systems, and their elevation above the natural grade may present some concerns related to grading, landscaping and aesthetics for the site. All systems require pumps or siphons.

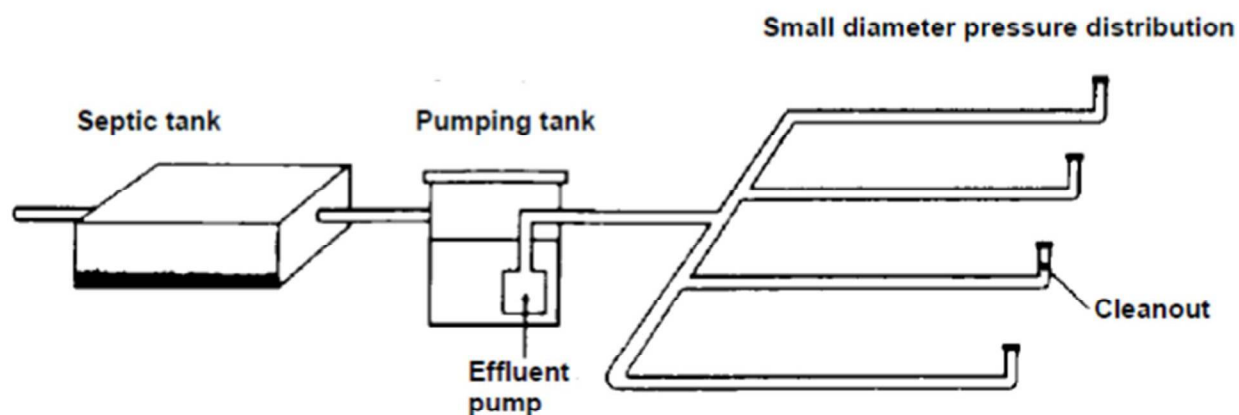
### Operation & Maintenance

Estimate By Discussing with Your Designer and Using Example Worksheet Enclosed

## Septic Tank or Pretreatment Unit to Low Pressure Pipe Leach Lines

### Basic Design

A low pressure pipe (LPP) system consist of a septic tank or pretreatment unit with shallow pressure-dosed pipes in a leach line trench. LPP systems were developed as an alternative to conventional gravity leach line systems to help overcome problems such as clogging of the soil, instantaneous overloading of soils, anaerobic conditions due to poor/saturated soil, and a perched seasonal water table. The LPP system uses several design features to overcome site challenges including: shallow placement, narrow trenches, pressure-dosing with uniform distribution of the effluent, pretreatment, design based on loading, resting and re-aeration between doses. The main components of a LPP system are a septic tank or an pretreatment unit, a dosing chamber (a submersible effluent pump, controls, a high water alarm, and a supply manifold), and small diameter distribution laterals with small perforations (holes). The septic tank or pretreatment unit is where primary or advanced treatment occurs. Partially clarified effluent then flows by gravity from the tank to a pumping chamber, where it is stored until it reaches the level which activates the controls to being uniform dosing to the pressurized lateral pipes. The controls are set for a specific pumping sequence, or timed dosing, which allows timed breaks between doses and increased time for the soil to absorb the effluent. The pumping chamber is usually sized to provide excess storage of at least one day's capacity in case there is a power failure or pump malfunction.



### Advantages

Shallow placement of trenches in LPP installations promotes evapotranspiration and enhances growth of bacteria. Improved distribution through pressurized laterals disperses the effluent more uniformly throughout the entire drain field area. Periodic dosing and resting cycles enhance and encourage aerobic conditions in the soil. Shallow, narrow trenches reduce site disturbances and thereby minimize soil compaction and loss of permeability. LPPs allow placement of the drain field area upslope of the home site. The problem of peak flows associated with gravity-fed conventional septic systems is overcome.

### Disadvantages

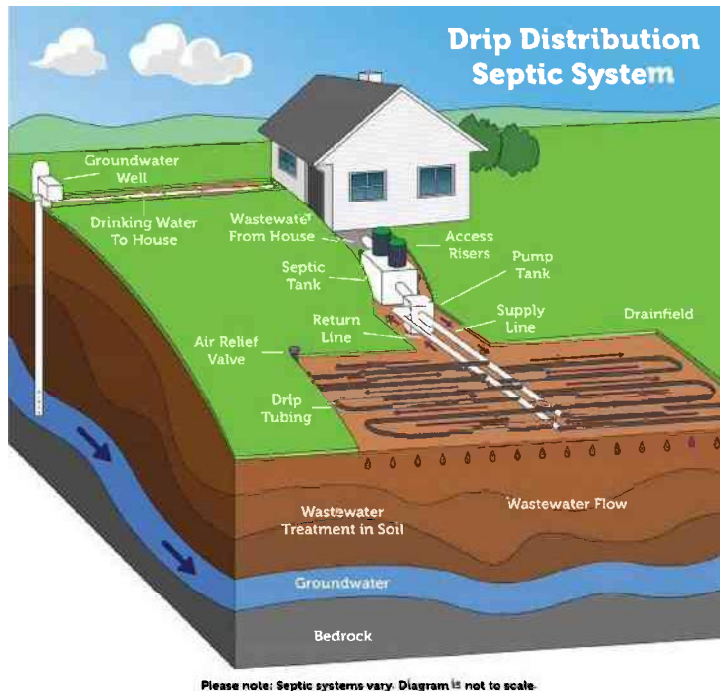
Cost is higher than those of conventional systems due to specialized construction and possible engineering design fees. In some cases, the suitability could be limited by the soils, perched seasonal water table, slope, and space characteristics of the location. A potential exists for clogging of holes or laterals by solids or roots.

### Operation & Maintenance

Estimate By Discussing with Your Designer and Using Example Worksheet Enclosed

## *Septic Tank or Pretreatment Unit to Drip Distribution Systems*

**Basic design:** Drip Distribution Systems are installed very shallow in the soil, at the surface of the ground or on top of a bed of sand, depending on the specific limiting conditions on the property. These systems are pressurized to ensure even distribution of wastewater into the soil. They utilize small diameter tubing with pressure compensating emitters to apply wastewater uniformly over an infiltration surface. Drip Distribution systems are typically split into at least two zones and works on the principle of timed micro-dosing to maintain aerobic conditions in the soil. Timed micro-dosing applies effluent to the soil at uniform intervals throughout a 24-hour period, which allows for improved wastewater treatment. When properly sited, designed, installed and operated, drip systems can help overcome the typical problems associated with uneven wastewater distribution which often result in the surfacing of wastewater in the distribution field, sewage odors and other nuisance conditions. Drip System have a septic tank or pretreatment unit and a dosing tank. The dosing tank is usually sized to provide excess storage of at least one day's capacity in case there is a power failure or pump malfunction.



**Advantages:** Treats sewage and distributes the effluent in smaller doses. These systems can be installed on wooded lots and challenging terrains. Due to the micro-timed dosing of this system increased treatment and absorption can occur on even the most challenging lots. The ability to easily split the soil distribution component into two or more zones allows the use of multiple smaller suitable areas on a lot, thus increasing its ability for use on tight, difficult lots.

**Disadvantages:** These systems can be more expensive to install but they can offer increase usability of your property.

### **Operation and Maintenance:**

Estimate By Discussing with Your Designer and Using Example Worksheet Enclosed



## HAMILTON COUNTY PUBLIC HEALTH

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hamiltoncountyhealth.org



## Responsibilities of a Household Sewage Treatment System Authorized Under a General NPDES Permit

The Ohio EPA issued the National Pollutant Discharge Elimination System Permit (NPDES) to provide a process for replacement household sewage treatment systems (STS) that discharge treated sewage effluent (non-soil based systems) to gain compliance with the provisions of the Federal Clean Water Pollution Control Act. The complete terms and limitations of this General Permit can be found on the [Final General Permit page](https://epa.ohio.gov/dsw/permits/GP_HouseholdSewageTreatmentPlants) of Ohio EPA's website. [https://epa.ohio.gov/dsw/permits/GP\\_HouseholdSewageTreatmentPlants](https://epa.ohio.gov/dsw/permits/GP_HouseholdSewageTreatmentPlants)

The General Permit defines the limitations of coverage for eligible systems and identify conditions where discharging systems cannot be installed. Hamilton County Public Health (HCPH) is required to determine eligibility of coverage under the permit. The General Permit requires new and replacement discharging systems to be permitted and installed under a local health district permit.

New or replacement discharging systems must meet certain effluent water quality standards defined in the General Permit. Owners of these systems must obtain on-going service and maintenance for the life of the system, and conduct regular water quality sampling to demonstrate compliance with the permit standards. The Ohio Department of Health (ODH), with the recommendation of the Sewage Treatment Systems Technical Advisory Committee, reviews and approves sewage treatment systems and components that treat household wastewater to meet the requirements of the General Permit statewide.

### **Steps to Install a Replacement Discharging Sewage Treatment System**

1. **Complete a Site Evaluation** - A property owner with an STS that needs to be replaced should begin by contacting an STS designer. The designer will then work with a soil evaluator to conduct a site and soil evaluation to determine if a soil based STS can be installed on the lot. The designer will work with the property owner to submit an "Application to Replace an STS" with a STS design and other required documentation and associated fee.
2. **Determine eligibility for coverage under the General Permit** - If the information submitted to HCPH shows that a soil based system cannot be installed, Hamilton County Public Health will determine whether the property is eligible for coverage under the General Permit for a discharging system.
3. **Submit a Notice of Intent (NOI) to Ohio EPA** -The property owner and HCPH will need to fill out the NOI, the property owner will need to sign the NOI and mail it along with the designated fee to Ohio EPA. This information will be reviewed by Ohio EPA to determine if the property meets the requirements for a replacement discharging system under General NPDES Permit.
4. **Obtain a Notice of Coverage** -The notice of coverage will be issued by the Ohio EPA to the property owner if the property is eligible for coverage. Coverage is valid for up to a five-year cycle and must be renewed at the end of the five-year cycle. This notice of coverage should be maintained with all other system information.
5. **Apply for an Installation Permit** - A copy of the notice of coverage must be provided to Hamilton County Public Health in order for the STS design to be approved and before a Registered Contractor will be able to obtain an installation permit for a discharging STS.



## Responsibilities and Requirements for System Owners and Local Health Districts

The General Permit defines all responsibilities of ownership and maintenance of a NPDES system. View it here: <https://epa.ohio.gov/portals/35/permits/OHK00003-FINAL%20PERMIT.pdf>

1. **Diagnostic Effluent Sampling** – The General Permit requires diagnostic testing of the effluent. System owners are responsible for ensuring that a sample is collected and reported to the local health district per the schedule below using the health district forms:

Parameter	Design effluent standard
Total Suspended Solids	18 mg/L
Nitrogen, Ammonia (NH <sub>3</sub> ) Summer	2 mg/L
Nitrogen, Ammonia (NH <sub>3</sub> ) Winter	4.5 mg/L
CBOD <sub>5</sub>	15 mg/L
<i>E. coli</i>	410 #/100ml
Dissolved Oxygen	Not less than 6.0 mg/L at any time
Chlorine, total residual <sup>(a)</sup>	Not to exceed 0.038 mg/L at any time

<sup>(a)</sup> See Part V, paragraph F of the NPDES Permit.

Schedule of Sampling	
Best Management Practice (BMP)	Reduction of Diagnostic Sampling
No BMP Below Used	
No BMP Below Used	Sample every year
Effluent Quantity Reduction	
25-50 % of Area is Full Soil Adsorption System	Sample every other year including calendar years 2017, 2019 and 2021 if applicable.
51-99% of Area is Full Soil Absorption System	Sample once during permit in calendar year 2021, if applicable.
Effluent Quality Improvement	
Flow Equalization	Sample every other year including calendar years 2017, 2019 and 2021 if applicable.
Surface Sand Filters	Sample every other year including calendar years 2017, 2019 and 2021 if applicable.
Other approved tertiary treatment devices	Sample every other year including calendar years 2017, 2019 and 2021 if applicable.
Combination of an effluent quality improvement BMP with effluent quantity reduction BMP	Sample once during permit in calendar year 2021, if applicable.
NOTE: Additional BMP's may be approved by the director as technology emerges.	

2. **Service Contract for the Discharging System** - The owner of a discharging household sewage treatment system that receives coverage under the General Permit is required to maintain a service contract for the life of the system. ODH approval for discharging systems and the General Permit's conditions require that a service contract be maintained by the property owner to ensure that the system operates properly and does not discharge untreated or insufficiently treated effluent. Hamilton County Public Health is responsible to ensure that system owners maintain a service contract for their system. HCPH must also enroll the system into our operation and maintenance tracking program. Operation and maintenance data for each approved discharging system are listed by manufacturer on the [Approved Pretreatment Components](#) page on the ODH website. <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/sewage-treatment-systems/pretreatment-comp>
3. **Operation Permit** - The owner of any sewage treatment system must operate, monitor and maintain the STS in accordance with the requirement of the Board of Health under an Operation Permit. The Operation Permit from HCPH is a separate permit from the NPDES permit and it must be renewed annually.
4. **NPDES Permit Renewal** - By federal law, NPDES permits can only be issued in five-year increments and must be renewed to continue coverage.
5. **NPDES Permit Transfer** - If your property changes ownership, you must submit a General Permit Coverage Transfer form to Ohio EPA.

The best location for your sewage treatment system (STS) can often conflict with the aesthetic vision you may have for your property. Negotiating its location around existing landscaping or future home improvement projects, such as garages or pools, can result in pushing the STS into more marginal and less optimal areas (e.g. heavily treed areas, steep hillsides, inferior soils). STS designers will often compensate for less optimal locations by adding treatment components and/or by increasing the system size. These design compensations will almost always increase the overall cost of a project. The list below is not exhaustive but can be used as a starting point to help you understand why STS costs can vary widely. Hamilton County Public Health only reviews the submitted STS design, we do not determine system components, sizing, location, or cost. Similar to how Planning & Development reviews the building plans for a proposed new home, we are only verifying a design is in compliance with local and state laws. It should be noted that HCPH always recommends getting multiple bids for any project.

## What Affects STS Installation Cost for Soil Based Systems?

	Lower Cost	Higher Cost
<b>Lot Size</b>	Large Lot	Small Lot
<b>Topography</b>	Flat Site	Moderate to Steep Slope
<b>Site Obstacles</b>	None/Few	Many
<b>Soil Conditions</b>	Good	Poor (Clay)
<b>Trees/Landscaping</b>	None/Few	Many
<b>Contractor Chosen</b>	Less-Experienced	Experienced
<b>Electrical Needs</b>	None/Minor	Moderate/Major
<b>Bedrooms</b>	Fewer	More
<b>System Type</b>	Traditional Systems	Alternative Systems
<b>Urban/Rural</b>	Rural	Urban

## Estimated Operation and Maintenance Costs Of Modern Sewage Treatment Systems

	Cost	Frequency (In Months)	Cost Per Month	Cost Per Year	Typical Cost Range	Typical Frequency Range
Electric Usage	\$15	1	\$15.00	\$180.00	Typical Range \$5-30 per month	Monthly - Total watt-hours
Pump Replacement	\$1,000	120	\$8.33	\$100.00	Typical Cost \$400 - \$1000	Typical Replacement 4-12 years
Aerator Replacement	\$800	60	\$13.33	\$160.00	Typical Cost \$500 - \$800	Typical Replacement 4-8 years
Control Replacement	\$1,000	120	\$8.33	\$100.00	Typical Cost \$1000 - \$1500	Typical Replacement 8-12 years
Other Device Replacement (fill in)	\$50	24	\$2.08	\$25.00	Varies depending on component	
UV Bulb/Powerhead	\$300	36	\$8.33	\$100.00	Typical Cost \$300 - \$600	Typical Replacement 2-6 years
Chlorine/Dechlorination/Other Disinfectant	\$0	1	\$0.00	\$0.00		
Maintenance Contract	\$275	12	\$22.92	\$275.00	Typical Cost \$225 - \$350	
System Pumping	\$300	36	\$8.33	\$100.00	Typical Cost \$250 - \$300	Typical Pumping Frequency 2-5 years
Other Cleanings/Material Replacement	\$0	1	\$0.00	\$0.00	Varies depending on component	
Sampling Required by NPDES Permit	\$200	12	\$16.67	\$200.00	Typical Cost \$175 - \$300	Yearly if Discharging System
HCPH Operating Permits	\$45	12	\$3.75	\$45.00	Current Cost \$45 per inspection	Typical Inspections per year 1.5
NPDES Permit	\$0	60	\$0.00	\$0.00	Current Cost \$200	Every 5 Years if NPDES discharge
<b>Estimated Total Cost</b>			<b>\$107.08</b>	<b>\$1,285.00</b>		
Estimated Lower Side Cost				\$910		
Estimated Higher Side Cost				\$1,600		

## Estimated Installation Cost Range of a Modern Sewage Treatment Systems

Years	Average Cost 3-4 Bedroom
2015-2018 (Soil Based Systems)	\$33,000
2015-2018 (NDPES Discharge System)	\$21,000

## Estimated Design Cost Range For a STS

	Range
2015-2018 (All STS Types)	\$2,400 - \$4,000

# KNOW THE FACTS!

## FINANCIAL AID INFORMATION FOR SEPTIC **SYSTEM** REPLACEMENT AND SEWER CONNECTIONS

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*Financial aid may be available to homeowners who are repairing or replacing their household sewage treatment system or those connecting to water or sewer lines.*

### GRANTS

#### Hamilton County & Ohio EPA WPCLF Grant

Contact: (513) 946-7966.

- This is a **grant** program based on family income. Local Health Departments apply for the grant annually; funding is not guaranteed. Upon approval to receive funds from EPA, moneys are typically allocated to eligible projects at the beginning of each year.
- Moneys may be used for sewage treatment system replacement and sewer connection costs for failing sewage treatment systems.
- Hamilton County Public Health bids projects and selects contractor.
- Payment issued directly to contractor after the installation is approved by Hamilton County Public Health.

### GRANTS & LOANS

#### U.S. Department of Agriculture – Rural Development

Contact: (937) 393-1921.

- This is a **loan** or **grant** program.
- **Grants** are based on family income and applicants must be over 62 years of age.
- **Loans** have no age restrictions, but may have income restrictions.
- Moneys may be used for sewage treatment systems and sewer tap fees or other home repairs.
- Areas covered under this program often vary. Contact the USDA Rural Development Office for eligibility and current coverage areas.
- Payment will be issued after the installation is approved by Hamilton County Public Health.

### LOANS

#### Hamilton County Home Improvement Program (HIP)

Contact: (513) 946-4487.

- This is a bank **loan** at an interest rate 3 percent below normal.
- May be used for septic systems, water/sewer connections and many other home improvements.
- No income restrictions for eligibility, but must meet bank's credit requirements.
- Can be used to correct code violations.

***For more information, please contact the  
Water Quality Division at (513) 946-7966***

*The provided information is believed to be accurate; however, program changes may occur. Feel free to contact 513-946-7966 with any questions.*



PREVENT. PROMOTE. PROTECT.

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