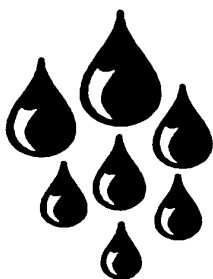




# ASSESSING YOUR HOUSEHOLD WASTE WATER TREATMENT SYSTEM

PROTECTING YOUR  
WATER QUALITY  
THROUGH A  
HOME & FARM  
ASSESSMENT



## WHY SHOULD YOU BE CONCERNED?

Virtually all suburban and rural residents use a septic system or some kind of on-site waste water disposal system. While these systems are generally economical and safe, household waste water contains contaminants that may harm water quality.

Potential contaminants in household waste water include disease-causing bacteria, infectious viruses, household chemicals, and excess nutrients such as nitrogen.

## WHAT CAN YOU DO?

Use this worksheet to address questions you have answered **Yes** to or **do not know** the answer to in the **Assessing the Condition and Location of Your Household Waste Water Treatment System** section in your **Home and Farm Water Quality Assessment**. This worksheet will help you develop an Action Plan to establish practices that reduce the risks of contamination to your drinking water supply.

A PARTNERSHIP PROGRAM FOR VOLUNTARY POLLUTION PREVENTION

UVI Cooperative Extension  
Service

VI Resource Conservation and  
Development Council, Inc.

USDA Natural Resources  
Conservation Service



## ASSESSING YOUR HOUSEHOLD WASTE WATER DISPOSAL SYSTEM

- | YES                      | NO                       |                                                                                                                               |
|--------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Do you have an on-site waste water disposal system (septic tank with drainfield or seepage pit)?                           |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Is your on-site waste water disposal system less than 50 feet from any water supply system (well or cistern)?              |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Is your on-site waste water disposal system less than 25 feet from a surface water body (guts, ponds, or coastal waters)?  |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Has it been over three (3) years since you had your septic tank cleaned out?                                               |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Do you regularly use chlorine or chlorine-based products for cleaning (for example, daily application in the toilet bowl)? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Do you dump grease, oil, or leftover household chemicals down your drain?                                                  |

If you have answered **Yes** or **do not know** the answer to any of these questions, refer to this factsheet for valuable information that will help you develop an Action Plan to reduce the risk of contamination to your drinking water supply and surrounding surface waters.

## I. DO YOU HAVE AN ON-SITE WASTE WATER DISPOSAL SYSTEM (SEPTIC TANK WITH DRAIN FIELD OR SEEPAGE PIT)?

Household waste water treatment systems are used to treat and dispose of waste water from the home. A household waste water treatment system that is properly built and maintained will function for many years and can minimize the potential for ground and surface water contamination.

Most states have made seepage pits and cesspools illegal because of their poor ability to treat waste water. However, many older homes in the Virgin Islands may still use these practices. If you have one of these types of systems, you may want to contact the Department of Planning and Natural Resources Division of Environmental Protection (DPNR-DEP) or Department of Health to ensure that your system is working properly.

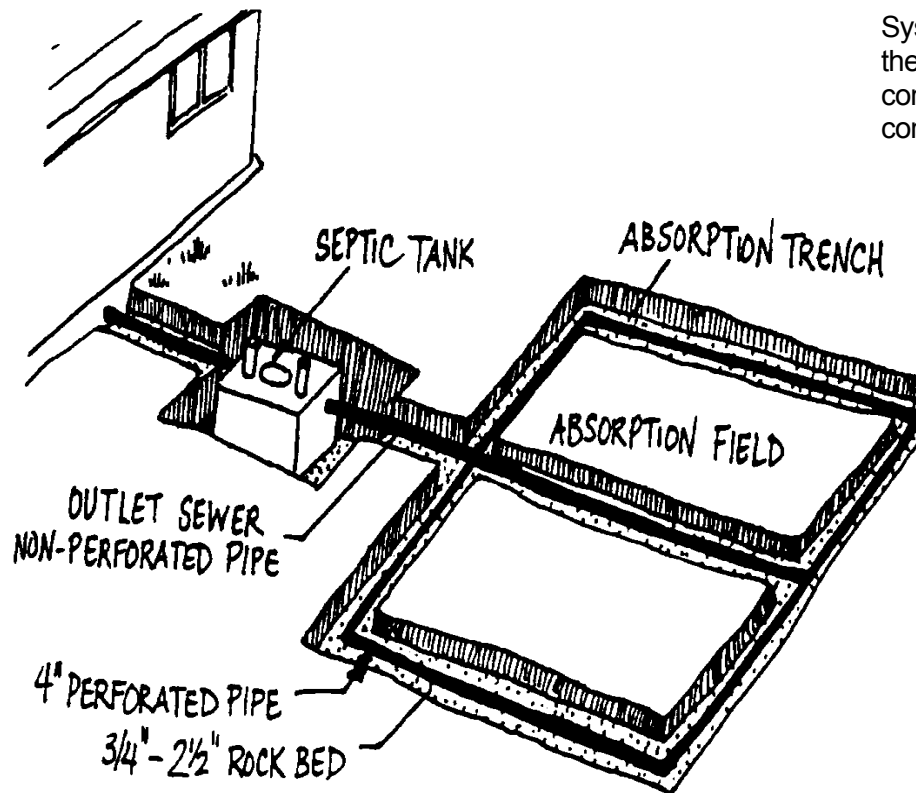
An individual household waste water treatment system, sometimes called a septic system, typically consists of a septic tank and drain field. Waste water from bathrooms, kitchen, and laundry room is routed to the septic tank where liquids and solids are separated.

Soft solids such as grease and soap float to the top and form a scum layer. Other solids settle to the bottom of the tank where they are partially decomposed by bacteria.

Liquid from the septic tank is discharged into the drain field where harmful, disease-causing microorganisms, organic matter, and nutrients are removed or broken down.

Some homeowners in the Virgin Islands use systems that separate out wash room and bathroom sink and shower waste water for grey water irrigation use. For more information on these types of systems, contact DPNR-DEP, USDA Natural Resources Conservation Service (NRCS) or the UVI Cooperative Extension Service (CES).

System design and location are the two important factors to consider when assessing water contamination potential.



**2. IS YOUR ON-SITE WASTE WATER DISPOSAL SYSTEM LESS THAN 50 FEET FROM ANY WATER SUPPLY SYSTEM (WELL, CISTERN, ETC.)?**

A primary concern related to the location of your on-site waste water disposal system is a safe distance from your water supply system. In the Virgin Islands, private septic systems (tanks and leach fields) are required to be at least 50 feet from a well or cistern. Seepage pits must be at least 100 feet away from a water supply. Contact the DPNR Permits or Environmental Protection Division (DEP) to determine minimum separation distances for your system.



**3. IS YOUR ON-SITE WASTE WATER DISPOSAL SYSTEM LESS THAN 25 FEET FROM A SURFACE WATER BODY (GUTS, PONDS, COASTAL WATERS, ETC.)?**

If your on-site waste water disposal system is located near a surface water body, there is an increased chance that it can harm water quality. Discharges from improperly maintained systems may directly enter surface waters, polluting the water and causing a public health hazard.

Virgin Islands law requires septic systems to be at least 25 feet away from surface waters, however, a 100 foot minimum distance is safer.

#### 4. HAS IT BEEN OVER 3 YEARS SINCE YOU HAD YOUR SEPTIC TANK CLEANED OUT?

Poor management of your septic system increases the risk of your drinking water becoming contaminated. Proper maintenance is one of the most important factors in making sure a septic system will function well over a long period of time. Maintenance involves regular pumping and limiting the types of materials disposed to those that will not damage your septic system.

Most properly-sized septic tanks need to have the solids pumped out every two to three years. If a garbage disposal is used, the septic tank should be pumped out more frequently. Pumping frequencies are estimates, the actual time between septic tank pumping will depend on the amount of solids entering your tank. Check with local septic tank pumpers for more information.



#### 5. DO YOU REGULARLY USE CHLORINE OR CHLORINE-BASED PRODUCTS FOR CLEANING?

The excessive use of chlorine as a household cleaning product (especially daily use in the toilet bowl) can harm your septic system.

Chlorine in your septic system acts the same way as in your cistern – it kills bacteria and other micro-organisms. In your septic system, the chlorine is killing beneficial micro-organisms that break down (“digest”) the waste. These organisms are necessary for your septic system to work properly. By killing these micro-organisms, you can cause your septic system to fail.

There are many non-chlorinated cleaning products available that may be used as an alternative. Make sure to read the product label before making a purchase. Contact the UVI Cooperative Extension Service for more information on least-toxic household products.

## 6. DO YOU DUMP GREASE, OIL, OR LEFTOVER HOUSEHOLD CHEMICALS DOWN YOUR DRAIN?

You should always avoid dumping grease and oil down your drain. They can plug the pipes or build up in the septic tank. Keep a separate container for used grease and oil. Properly dispose of it with other household garbage.

Household chemicals that are poured down the drain can damage your waste water disposal system. Bacteria naturally present in the septic system break down the sewage. When household chemicals are added to the system, they may destroy these beneficial bacteria, reducing the effectiveness of your septic system. There are many cleaning products available that are not toxic to your septic system. Look for those labeled “**septic-system safe**” or “**biodegradable**”.



### FOR MORE INFORMATION

This assessment does not cover all potential risks on your property that could impact the quality of your drinking water. It is designed to: create an awareness of potential risks to water quality on your property; provide voluntary solutions to reduce pollution risks; and develop an action plan to protect your drinking water supply. Individual areas and states may vary in requirements on minimum standards for water supply protection. Always check with your local offices listed in the reference section of each worksheet before making changes to your water supply system. There are other, more detailed, Farm\*A\*Syst/Home\*A\*Syst programs available. If you have specific questions about protecting your drinking water, contact your local Extension Service Office, local USDA Natural Resources Conservation Service Office, or your local Soil and Water Conservation District Office. You may also contact the National Farm\*A\*Syst/Home\*A\*Syst Office at B142 Steenbock Library, 550 Babcock Drive, Madison, Wisconsin 53706-1293, Phone (608) 262-0024.

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## ASSESSING YOUR HOUSEHOLD WASTE WATER TREATMENT SYSTEM

| If You Answered "Yes" to the Following Questions | What to Do                                                                                                                                                          | Who to Call                                                                                                                                                              | Other References | What You Did |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|
| Questions 1,2,3                                  | <p>Know the location of your waste water disposal system.</p> <p>Test drinking water for bacteria and nitrate.</p> <p>Learn more about your soil type.</p>          | DPNR-Division of Environmental Protection (DEP) and Division of Permits, Department of Health, or UVI-CES office.                                                        |                  |              |
| Question 4                                       | Monitor septic tank and pump scum and sludge when needed.                                                                                                           | Local septic tank pumping service, UVI-CES office, or DPNR-DEP.                                                                                                          |                  |              |
| Questions 5,6                                    | <p>Limit use of chlorine or use non-chlorinated cleaning products.</p> <p>Do not dispose of grease, oil or other household chemicals down your drain or toilet.</p> | DPW-Division of Environmental Services or DPNR-DEP to determine where these products can be disposed of, or UVI-CES office for alternative cleaning product information. |                  |              |

### **PHONE NUMBERS:**

DPW Environmental Services Division: 773-1290 (St. Croix); 776-4844 (St. Thomas - St. John)  
 DPNR-DEP: 773-1082 (St. Croix); 774-3320 (St. Thomas - St. John)  
 DPNR-Permits: 773-1082 (St. Croix); 774-3320 (St. Thomas - St. John)  
 Department of Health: 773-1311 (St. Croix); 774-6880 (St. Thomas - St. John)  
 UVI-CES: 692-4080 (St. Croix); 693-1080 (St. Thomas - St. John)