



Ten Simple Things You Can Do to Protect Water Quality



by Julie Wright

University of the Virgin Islands Cooperative Extension Service

1. Keep your cistern and collection system clean.

Your cistern water quality is directly dependent upon how you manage your collection system. You should empty and clean your cistern every three to five years to remove sludge deposits. Roofs, gutters and screens need to be inspected and cleaned regularly, either monthly or after heavy rainstorms. Regular maintenance will minimize water contamination from bacteria and other pollutants. Down spout collectors can be used to catch and divert the first flush of water off the roof to minimize the amount of contaminants that wash into the cistern. The collectors can also be disconnected prior to hurricanes to prevent salt and debris from entering the system. These collectors must also be emptied and cleaned out periodically.

2. Make sure all cistern openings are screened.

All openings to your cistern (including the overflow) should be screened to prevent animals and debris from entering. Check all screens after major storms to remove any debris that may have collected. It's also a good idea to fence any portion of your collection system that is accessible to animals or children.

3. Chlorinate your cistern water regularly.

Chlorine should be added to your cistern water on a regular basis in order to disinfect your water supply. Add five (5) fluid ounces of chlorine per 1000 gallons of water in your cistern on a monthly or bi-monthly basis.

4. Conserve your soil.

Water moving over the soil surface picks up and removes soil particles and washes this soil (sediment) into the sea. **Sediment is the most prevalent pollutant impairing water quality in the Virgin Islands.** Erosion of productive topsoil damages lawns, gardens, and crops by removing the nutrient-rich

upper layer of soil that plants need to thrive. Soil eroded from farms, yards and construction sites can damage downhill properties and block road-ways. Eroded soil silts-in harbors and channels, leading to more frequent dredging. Finally, eroded soil smothers coral reefs and seagrass beds, clouds water and reduces visibility for sight-feeding fish, impairs recreational use of coastal waters, and harms fisheries. Conserving soil on your property can help you to maintain the long-term productivity of your land and protect water quality. For more information on how to conserve soil on your property, contact the UVI Cooperative Extension Service (CES) or the USDA Natural Resources Conservation Service (NRCS).

5. Have your septic tank pumped.

Check the yellow pages under "Septic Tanks and Systems – Cleaning" for pumping services. Frequency of pumping depends on your household and septic tank size. Typically, a tank for a four-person household needs to be pumped every three (3) years. UVI-CES, DPNR Division of Environmental Protection (DEP), or your pumping company can provide additional guidelines. Regardless of manufacturer's claims, septic system additives have **NOT** been proven to eliminate the need for regular pumping, and some can contaminate ground or surface waters. Neglecting septic system maintenance can result in backed-up sewage and expensive repairs. Neglect can also lead to surfacing of sewage that can pollute cisterns, wells and surface waters and harm human health.

6. Do not throw oil, grease or left-over household chemicals down the drain (or toilet).

Grease and cooking oil can plug the pipes in your home and buildup in the septic tank, causing back-up problems and requiring more frequent septic tank pumping. Used grease and oils should be collected in a container and discarded with other household garbage. Also, many common household chemicals

can damage your septic system by killing the beneficial bacteria naturally present in the septic system that break down sewage. In particular, daily use of chlorine bleach in toilet bowls and other areas can kill the beneficial bacteria in your septic system that breaks down waste and cause the system to fail. There are many cleaning products available that are not toxic to your septic system. Look for those labeled “septic system safe” or “bio-degradable.”

7. Use least toxic household products.

Many common household products used in the Virgin Islands can trigger allergies, cause nausea, or other adverse health effects, harm septic systems, and/or pollute our coastal or ground waters. There are alternatives to these products available locally, including recipes using common household items that are relatively inexpensive and easy to obtain (for example, most surfaces can be cleaned with a mixture of baking soda, vinegar, water and rubbing alcohol). Read product labels carefully. Look for products with natural or non-toxic ingredients. For more details on **Recipes for a Non-Toxic Household**, contact UVI-CES.

8. Protect your soil from contamination by oil, gasoline or other petroleum products.

Oil, gasoline and other petroleum products in small quantities can contaminate soil and water and are hazardous to human health. Just **one quart** of motor oil can pollute **250,000 gallons** of water! Refuel equipment over hard surfaces so spills won't soak into the soil and collect used products for proper disposal. **NEVER** dump these products on the ground or in guts or storm sewers, and **NEVER** flush them down the drain or toilet. Used oil can be recycled at Public Works (DPW) collection sites on all three islands. For information on locations and hours of operation, contact DPW, DPNR-DEP or UVI-CES.

9. Limit your use of lawn and garden chemicals.

Excess fertilizers and pesticides can move easily over and through the soil to contaminate surface and

ground waters. These chemicals can also leak into cisterns through cracks or improperly sealed openings, and can run into poorly protected wells. Apply lawn and garden fertilizers sparingly, making sure to follow **ALL** directions on the label. Don't store or mix pesticides and fertilizers where spills can soak into the soil or run off into surface waters.

10. Shield animal waste from rain.

Animal yards and manure piles are sources of bacteria and excess nutrients that can contaminate surface and ground water. Divert stormwater away from these areas, and prevent runoff from these areas from entering nearby guts, ponds or coastal waters. For more information on proper animal waste storage and disposal, contact the VI Department of Agriculture, USDA-NRCS, or UVI-CES.

Water Quality Phone Contacts:

USDA Natural Resources Conservation Service:

St. Croix: 692-9662, 692-9632

UVI Cooperative Extension Service:

St. Croix: 692-4080, St. Thomas: 693-1080

V.I. Department of Agriculture:

St. Croix: 778-0997. St. John: 776-6274, St. Thomas: 774-5182

V.I. Department of Planning and Natural Resources:

St. Croix: 773-1082. Thomas: 774-3320

V.I. Department of Public Works (DPW):

St. Croix: 773-1290, St. John: 776-6346, St. Thomas: 776-4844

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