



in this issue >>>

Black Water

By Arlene Procnier
Environmental Officer

Black water refers simply to untreated sewage.

It is definitely biodegradable, but can be extremely toxic. Pathogens in sewage cause illnesses such as diarrhea, dysentery, and hepatitis in humans. Filter feeders such as clams, oysters and mussels concentrate these disease-causing organisms. There goes lunch! Plus, nutrients are very abundant in black water. They over-stimulate the growth of plants and algae and impact all other marine life.

So, what's a boater to do?

Before 2007, it was okay to dump sewage into the water, as long as you were not near a popular anchorage, a harbor, a marina slip, a narrow bay, protected areas or a swimming area.

Under the *Canada Shipping Act, 2001 Section 6.3.2*, brought into force July 2007. These regulations are in force and the legal requirements are imposed on all recreational boaters.

All boats with a head **must be fitted with a holding tank** securely fastened to the hull or a Marine Sanitation Device (see the Act for more info).

Portable toilets or "porta-potties" meet the legal requirements (they have a removable holding tank) but the toilet must be securely fastened to the hull. Great care must be taken when removing the holding tank for disposal of contents in a land-based toilet or sewage system.

Sewage discharge is not permitted within 3 nautical miles of shore or any inland water, including the Great Lakes. There may be some exceptions where pump-out stations are not accessible, but don't count on this. For freshwater recreational boaters they are no longer able to discharge their sewage directly out through the hull. There are 'fines' if you are caught. Check the Act.

So, what about that Holding Tank? What's a person that hasn't a tank to do or looking at a newer older boat? When looking for or at an older tank, guidelines to look for;

- 1) an aluminum or stainless steel tank will begin to leak in 2 - 5 years at the seams/fittings due to corrosive urine, or,
- 2) a flexible tank or 'bladder' on sailboats are hard to permanently secure and sometimes have an odor problem, or,
- 3) the recommended is a rotationally molded seamless polyethylene tank thickness of 6 millimeters for the smallest tank. I suggest you do a little homework as there is a boatload of information available. Connecting hoses make sure they are marine approved, flexible, double clamped, and rinsed well after each use.
- 4) Oh, and the smell! The answer is proper ventilation and a bioactive aerobic bacteria treatment. Chemical deodorizers or disinfectants often cause more problems than they prevent. Chemical products added to the tank, kill both kinds of bacteria, so the sewage cannot properly decompose. It merely dissolves into tiny particles that settle to the bottom of the tank, along with chemical residue, to form a toxic sludge.
- 5) Vent lines from the tank are of prime importance in providing oxygen for aerobic bacteria. What about their location? A whole book can be printed about this, so, homework is in order before you begin. Also, keep in mind that sailboats may need to be vented from the top instead of the side.

And the maintenance;

- 1) As with every piece of equipment, you need to know how to use it and maintain it. Every person on board should be instructed with the proper way to flush the head. Don't forget what cannot be put in the head; kitchen waste, fats, solvents, detergents, paints, oils, emulsifiers, bleach, dish soap, or cleaning products that contain pine oil, petroleum or alcohol (substances

that will break down seals, gaskets, and valves, walls of the hoses over time). Use marine toilet paper. We now have toilet paper available that will dissolve within 30 minutes. 2) When closing up your boat after a cruise, spend a few minutes doing proper maintenance/clean up on your head and flush your lines with water.

As a result of the regulations more marinas and boating clubs have Pump-out stations. As part of your boating experience, you should plan on locating pump-out stations near where your boat is being moored on your next cruise route.

Grey Water

By Arlene Procnier
Environmental Officer

Grey Water is any water you use for washing, showering, cleaning, and washing dishes and clothes.

The soap or detergent can affect marine life in the following ways:

- *It may contain chemicals that are toxic.* Never use products containing chlorine, formaldehyde, ammonia, or chlorobenzene. Read the label. Look for environmentally friendly cleaners.
- *It may contain phosphates.* An increase in phosphates causes excessive algae growth. As the algae decompose, they rob the water of oxygen, damaging fish and other wildlife. Avoid products that contain phosphates.
- All soaps and detergents, whether "natural" or otherwise, contain surface-active agents or surfactants, which create suds or foam. Discharged in grey water, these surfactants plug the gills of fish, literally suffocating them.

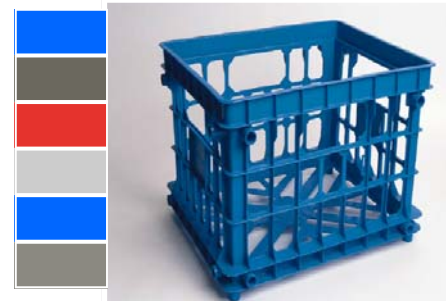
So, what can we do?

- Use as little soap as possible. Even hand washing can be accomplished with 'hand sanitizers'.
- Never let dirty dishes dry. Scrape waste into the garbage, remove grease with a reusable cloth and soak dishes. They don't require the same amount of soap and are easier to wash!
- If on a day cruise, take dirty dishes home to clean.
- Use shore facilities for showering, laundering, etc whenever possible.
- If no holding tank for grey water, consider getting one. Eventually grey water will be illegal as well.
- Tell guests onboard your boat to use as little soap as possible.

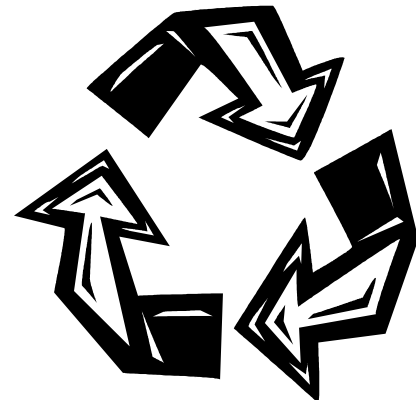
Should we think about grey water only in regards to our boats? A recent version of Water magazine has a grey water plan for a house. We should think about reducing grey water from our homes that eventually finds its way into our sewers, rivers, and oceans.

PACIFIC MAINLAND DISTRICT a unit of CANADIAN POWER & SAIL SQUADRONS

Remember that, in our role as "Safe" boaters, we also assume stewardship of our Environment both individually and collectively.



**A Newsletter Providing
Environmental Guidelines For
All Boaters On behalf Of
Environment Officers In PMD.**





The reason so many cleaners good at getting rid of rid of stains, bacteria and the like is because they have toxic and petroleum-based ingredients that damage our oceans, environment and our health. Fortunately, there are some simple solutions right at home that are about as natural as you can get when it comes to keeping your ship shiny:

All Purpose Cleaner-

vinegar, vinegar and salt, or a paste of baking soda and water are all effective grease cutters.

Aluminum Cleaner-

After removing as much substance as possible, fill a pan with one quart of water and two tablespoons cream of tartar. Bring to a boil and simmer for ten minutes. Rinse well.

Window/Glass Cleaner-

Fill a spray bottle with equal amounts of vinegar and water. Apply with a soft cloth and dry with a squeegee or newspaper.

Furniture Polish-

Use olive oil on all wood surfaces. Apply with a soft cloth, rub in, let stand for several hours, and then polish with a soft, dry cloth to remove any residue.

Decorative Metal Cleaner-

(for brass, copper or pewter)-Combine 1/2 cup of salt with 1/2 cup white vinegar. Add enough flour to make a paste. Apply and let sit 15 minutes to one hour. Rinse thoroughly to prevent corrosion. Salt and vinegar should not be used on metals that have a lacquer coating.

Copper Cleaner-

Make a paste of lemon juice, salt and flour.

Fiberglass Stain Remover-

Use a paste of baking soda.

Mildew Remover-

Combine salt with lemon juice or white vinegar to make a paste.

If you like your cleaning products pre-packaged Sailors for the Sea recommends four brands that you can use to reduce the trace you leave on the

Seventh Generation-

These products are chlorine, phosphate, petroleum surfactants, solvents, VOC and optical brighteners-free using ingredients like lemon oil, hydrogen peroxide, sodium chloride (natural salt), and other botanical extracts. Fragrances are derived from pure plant and flower essences. Company belief in corporate transparency keeps them openly accountable and responsible for everything they do and making those actions aware to the public.

Clorox GreenWorks-

Their products are made from ingredients derived from coconuts, corn oil and lemon oil, containing no phosphorus or bleach. They say their alkyl polyglucoside comes from coconut oil and their ethanol and glycerine from corn oil; while that's better than using petroleum-derived alternatives, these sources raise issues of rainforest destruction and global food issues (7th generation also uses coconut). These are also a more affordable alternative to the other brands.

Simple Green Naturals-

While Simple green's main line contains a small amount of toxic butyl cellosolve (found in traditional cleaners) their Naturals line shares the same benefits as the above products, with no petroleum-based or synthetic products. Additionally, their containers are made from 25% post-consumer recycled content and printed with soy-based inks.

