

# SHORE STEWARDS NEWS

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## Green Boating Practices

According to the Puget Sound Action Team website, people in the Puget Sound region own more than 165,000 power boats, 43,500 kayaks and canoes, 21,500 sailboats, and a large number of inflatable boats, sailboards and other personal watercraft. When not on the water, thousands of boats are moored at private and public marinas. These boats have a noticeable impact on our marine water quality. This issue focuses on what boaters can do to minimize their impact on our fragile marine environment, and how they can be good stewards when out on the water.

## Don't Spill a Drop

Recreational boaters put more than a quarter billion gallons of hydrocarbon pollution into our waters every year, which is more than 20 times the amount of oil spilled by the Exxon Valdez. Even a very small amount of oil or gasoline can contaminate a large area of water. The chemicals present in fuel react with sunlight to become much more toxic, killing plankton and other species. The sheen of spilled oil or gas you see on the water can be fatal to the tiny animals that live in the surface layer of the water. Juvenile fish and shellfish also depend on the surface microlayer.

One of the most common contributors to spills is the practice of "topping off the tank". Fuel vent overflow from a 25 gallon tank can be as much as 2 cups of fuel; this amount increases with larger tanks. Warm weather will expand the fuel within your tank, and a nearly full tank on a boat that is rocking with the waves on a summer day will often spill fuel from the vent. A good practice is to fill the tank to no more than 90% of capacity. Most marina fuel pumps can supply fuel much faster than medium and small boats can easily handle. The "burping" effect is a major fuel spill source. Don't rush your fueling, and don't worry about keeping other boaters waiting.

Some fueling practices you might want to follow:

- Avoid spilling even one drop in the water. Know how much fuel your boat holds and how much you need. Don't use a hands-free clip, and don't rely on an automatic shut-off device; hold your nozzle when refueling. Feel for an airflow from the vent, and listen for a change in tone as the tank gets full.
- Don't transfer fuel between tanks when you are on the water. A container with reserve fuel should connect directly to the engine. Catch spills around the deck with an absorbent pad. Use a fuel saver device like a "No Spill" to catch spills from the fuel vent.
- Wipe up all drips and spills on deck from the fuel vent, and dispose of pads properly. If you spill any overboard, don't use detergents to disperse the spill or sheen on the water; it's illegal. Boaters can report spills to the "Spills Aren't Slick" hotline, 800-OILS-911.
- Another reason to avoid spilling fuel: it can ruin paint, striping, gelcoat, trim and upholstery.

## **Bilge Over Troubled Waters**

The bilge collects a number of different fluids: drips from an oil change, leaks from a loose fitting, fuel, antifreeze, etc. These are sometimes pumped overboard by automatic pumps. Any amount of discharge of grease, fuel, oil, soaps, detergent, bilge cleaners and degreasers is illegal and can bring a hefty fine. Even “biodegradable” cleaners increase the harmful effects, as cleaners just spread the pollution over a larger area of water, harming even more fish and marine life. If it discolors the surface water, it is pollution!

To prevent petroleum based products from mixing with the water in your bilge, you should:

- Minimize oil leaks by keeping your engine tuned. Fit a drip tray under your engine to catch leaks. Check clamps and filters to ensure they are seated properly. Check belts and hoses for cracking or peeling. Be sure to wipe up drips, splatters and spills immediately.
- Secure an oil-absorbent pad in your bilge or place it under your engine. Check it often. Some pads soak up only the oil in your bilge, not the water. These are very effective in keeping your bilge clean. Use gloves to wring out oil from a saturated pad into a container for recycling. Re-use the pad. Some pads contain microbes that “eat” the oil over several days or weeks; this makes disposal much easier.
- Inline bilge filters are another alternative for dealing with dirty bilge waters. They are designed to remove petroleum products from bilge water without restricting the performance of the bilge pump. This allows a clean discharge. Check these periodically for oil saturation, and replace the filters as needed.

## **The Two-Stroke Blues**

Did you know that conventional two-stroke outboard motors discharge up to 25% of their oil/fuel mixture directly into the water? If you use 20 gallons of fuel over the season, you may have poured the equivalent of a 5 gallon can of fuel and oil into the Sound! Personal motorized watercraft spill up to one-third of their fuel, which is an estimated 150,000,000 gallons of oil into U.S. waters each year. To minimize the effects of your outboard or personal watercraft:

- Keep your engine well tuned at all times.
- Buy a 4-stroke next time you are shopping for engines. They save fuel costs, are quieter, and pollute less.
- Consider one of the new inboard diesel or gas engines; some produce less in air pollution.

Paint scrapings and many boat solvents and cleaners are toxic to fish and wildlife.

## **Bottoms Up**

When boats are hauled out of the water and onto land for painting and cleaning, much of what comes off the boat can end up in the water. Use a “drop cloth” or tarp to collect residue from sanding, painting and cleaning. Use hard antifouling paint or one of the new “non-fouling paints”. Don’t buy more paint than you use; reseal and keep for use at a later date. And if you scrub the hull while the boat is in the water, use a soft brush, as hard brushes can scrape off bits of paint that end up polluting the water. Consider using “natural” cleaners that are described on the following page. These are easy to make and use, and do not contain the toxic chemicals often found in commercial cleaners.

## All Decked Out

Many of the products sold to clean boats contain toxic chemicals. Even “biodegradable” products may contain chemicals like chlorine bleach, which is dangerous to marine life. Avoid the following substances listed among the ingredients: **Surfactants** are what create suds in all soaps and detergents. These attach to the gills of fish, which can suffocate them. **Phosphate-free** listed items can legally contain up to 1% phosphates.

### ALTERNATIVE CLEANING PRODUCTS FOR YOUR BOAT

<b><u>Decks:</u></b>	Use 1 part vinegar to 8 parts warm water
<b><u>Fiberglass stains:</u></b>	Make a paste of baking soda and water. Be careful; baking soda is an abrasive. Use lemon or lime juice to rinse cleanser off.
<b><u>Chrome:</u></b>	Use a mixture of vinegar and salt.
<b><u>Chrome/metal:</u></b>	Use baby oil to polish.
<b><u>Brass:</u></b>	Use Worcestershire sauce, or make a mixture of equal parts water, salt and vinegar.
<b><u>Copper fittings:</u></b>	Use a solution of lemon juice and water.
<b><u>Copper:</u></b>	2 parts water to 1 part vinegar.
<b><u>Stainless steel:</u></b>	Use a cloth and undiluted white vinegar.
<b><u>Aluminum:</u></b>	Use a soft cloth with a solution of 2 tablespoons Cream of Tartar and one quart of hot water.
<b><u>Clear plastic/glass:</u></b>	Lemon juice and salt solution.
<b><u>Windows &amp; mirrors:</u></b>	Add one cup vinegar to one quart water, put in spray bottle.
<b><u>Interior wood:</u></b>	Polish with olive oil or almond oil. Use for interior woods only.
<b><u>Teak:</u></b>	Use mild powder soap and bronze wool.
<b><u>Decks:</u></b>	Mix 1 part white vinegar to 8 parts warm water.
<b><u>Bleaching:</u></b>	Hydrogen peroxide bleach (DO NOT use chlorine bleach!)
<b><u>Scouring:</u></b>	Make a paste of baking soda and water.
<b><u>Mildew:</u></b>	Use a solution of vinegar and salt.

## Don't Let It Go To Your Head

You collect the human waste from your boat's “head” in a holding tank, to ensure that the sewage doesn't make it into the water. What about the water used for washing your clothes and dishes, or in the sink and shower? If it does not go into the holding tank, be sure to use safe alternatives for all your washing. Here are some suggested alternatives. If you can't find soaps and detergents that meet your needs in the local chain grocery store, check a marine store or a store that carries organic and natural products.

<b><u>Hair:</u></b>	Use baby shampoo that is phosphate-free and pH balanced.
<b><u>Hands/Body:</u></b>	Use soaps that have no petroleum base, preferably ones that are vegetable based. Castile soaps, for example, are predominately olive oil based.
<b><u>Shower:</u></b>	To clean the shower, wet the area and scour with baking soda.
<b><u>Dishes:</u></b>	Use soap sparingly. Use non-petroleum based soaps.

## Bibliography and Links

1. Guide to Greenboating, Georgia Strait Alliance (Canada). Information on green boating practices. <http://www.georgiastrait.org/CleanBoating/guidepl.php>
2. Boat U.S. Foundation. Fueling tips, dealing with a spill, preventive maintenance, and other topics are covered in this website.  
<http://www.boatus.com/foundation/cleanwater/drops/FuelTips.asp>
3. Puget Sound Action Team: "Marinas and Recreational Boating".  
<http://www.psat.wa.gov/Programs/Marinas.htm>

## Calendar of Events

**February 1, 2007: Conservation District Plant Sales.** Last day to order plants for the Plant Sales held by the Whidbey Island Conservation District and the Snohomish Conservation District. See December 2006 Newsletter for full details.

**February 8, 2007: Camano Celebration by Whidbey Camano Land Trust.** Plan now to celebrate the recent protection of Camano's Livingston Bay tidelands and the lower reach of Kristoferson Creek at the Whidbey Camano Land Trust Camano Celebration. The event will be held on February 8, 5:30 - 7:30 pm in the Meadow Room at Four Springs Preserve on Camano Island. RSVP by February 5. (360) 222-3310

**March/October 2007: WSU Beach Watchers training on Whidbey Island.** Training will be held on Tuesdays and Thursdays from 9:00 a.m. to 4:00 p.m. You receive 100 hours of university level training in a large variety of subjects. There are several excellent field trips during the training. In return for their training, Beach Watchers are expected to volunteer 50 hours each year for two years. There are many ways to volunteer, and volunteer hours add up quickly. Volunteers have a lot of fun working together and enjoy monthly meetings and occasional field trips. For additional information, you can contact Beach Watchers coordinator Kristen Cooley at [kcooley@wsu.edu](mailto:kcooley@wsu.edu), or call her at (360) 679-7391.

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