



***SPOTLIGHT ON...* BOATING FOR CLEAN WATER**

Winterizing your Boat



Puget Sound residents 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 (Whatcom County Shore Steward News, June 2007). This is the time of year that many boats are being brought in for the winter season after a summer of adventures. This issue of Shore Steward News is focused on helping boat owners reduce harmful environmental impacts (or your “boat print” if you like) on Puget Sound wildlife and waters during the winterization process.

Fuel

In North America, recreational boating contributes more than a quarter billion gallons of hydrocarbon pollution into our waters every year, which is more than 15 times the amount of oil spilled by the Exxon *Valdez*. It is the tiny little spills that most boaters experience that add up into this huge number. There are several things you can do to reduce the possibility of future spills while your boat is tied up.

- Fill your fuel tank 90% of the way for the winter. This will reduce water condensation in your tank and getting water in the gas. On warm days, which may still be ahead, fuel can expand and start gushing from the fuel vent even after you’ve left the dock so don’t fill it up. Consult with your local boat dealer on whether or not fuel additives should be used with your specific type of engine. If you do use fuel additive, buy and use only what you need.
- Slow down while you fuel up as most small spills occur during the fueling process. Fuel vent overflow from a 25 gallon tank can be as much as 2 cups of fuel. Not only is this a waste of your money, it is an illegal fuel spill. Since most marina fuel pumps can supply fuel much faster than medium and small boats can easily handle, it’s a good idea to avoid using the hands-free clip or automatic shut off device. Know the size of your tank and listen for the rushing air sound that signifies a rapidly filling pipe.
- Install a “No Spill” type device to catch spills from the fuel vent, available at many marine stores.



The Engine Room

Whether you are in a small or large power boat, you have an engine and a bilge. This section provides some tips for ways to keep Puget Sound healthy through your practices in the “Engine Room”.

- Perform regular maintenance. A well-tuned engine will increase your enjoyment as well as help keep Puget Sound clean.
- Place a drip pan under your engine(s) to capture oil and keep it out of the bilge. You can line it with absorbent pads to make clean up easier.
- Consider buying a 4-stroke engine next time you are shopping for engines. They save fuel costs, make less noise and pollute less. 2-stroke engines discharge up to 25% of their oil/fuel mixture directly into their waters.
- Be prepared. If something breaks, the situation could get very messy. Having absorbent pads on hand can make the difference between a small problem and an expensive spill. They are good insurance and available at marine stores. According to Washington State law, the ‘polluter pays’ principle is applied to oil spill clean-up costs.
- Do not use detergents or bilge cleaners to get rid of oil in the bilge. It is illegal to use liquid detergents as they get rid of oil sheens, but not the oil. Soap breaks oil into smaller droplets that are harder to see, harder to contain and more damaging to sensitive marine life. Use an absorbent pad (or a pillow if you don’t have a pad!).

Slip-side Maintenance

Salt is very corrosive. All boaters know this. A quick freshwater rinse when you return to dock will prevent the need for harsher cleaners and still keep you, and your boat, looking good. Even with regular care, slip-side maintenance (work while the boat is in the water tied up next to a dock) is necessary and has great potential for causing damage to Puget Sound. If your boat is stored in a marina, check with the harbormaster on their maintenance policies as some have limitations or prohibitions on certain type of maintenance in their facility.

- According to the Washington Department of Ecology, slip-side projects should involve less than 25% of the area of the deck and superstructures of the boat. Major hull refinishing is not allowed while the boat is in the water.
- A tarp suspended between the boat and the dock or the paint float will catch spills, sandings or debris that could end up in the water.
- Most marine paints need to be thinned. Mix paints on shore. If you can’t mix on shore, then mix over a tray or a tarp that is large enough to catch the spill.
- Use small cans (less than 1 gallon) and avoid having more than one can open at a time. Make sure the can is in a tray to hold any spills that may occur.
- Turn the boat around when you need to work on the far side, rather than trying to set up where the wind and wave action is greater. Often this easy solution is overlooked.



Hull Care and Paint Choices



Hull care normally entails pulling your boat out of the water. If you are doing slip side maintenance on the hull, be sure to only work the dock side hull above the water surface only – from the boot stripe up. Some hull paints are soft so use a sponge to avoid scraping existing paint into the water.

There are many choices for bottom paints – hard copper, soft copper, silicon, Teflon and more.

Consider these things: how often you use your boat, the hull material, where you keep your boat, and of course, water quality. Anti-fouling paints are designed to be hard on marine life so they don't stick to your boat. They rely on poison or toxic metals to do their job. When the paint gets into the water, it continues doing its job – killing marine life.

New lines of biocide-free non-fouling paints are available (epoxy, ceramic or silicon). These paints rely on their slick finish to inhibit growth. The rumor is that this could also make your boat more efficient or faster. The paints do require special applications or periodic maintenance, but the environmental and performance benefits make it worthwhile to some boaters. There are also some 'hard' paints that are less likely to leach or slough off into the water.

If you have a small boat, consider storing it on dry land over the winter. It can entirely eliminate the need for anti-fouling paints. Also, it is illegal to wash, sand, scrape or paint a boat while beached in the intertidal zone.

Leftover materials should never be disposed of in the marina dumpster. Share leftovers with other boaters before throwing anything anyway. Check with your harbormaster to see if they have a place for this type of waste. Recreational boat waste can be disposed of for free at hazardous waste drop sites in your community (The Hazardous Waste Hotline: 1-800-633-7585).

What's Living on Your Boat?

Animals and plants that grow in one climate or habitat have been transported to entirely new places by attaching themselves to boat hulls, engine intakes or trailers and hitching a ride. Most species will die in their new environments because the world is simply not right for them (too saline, too dark, too deep, too shallow...). However, some species take to their new home with a vengeance. Because they have no natural predators in the area to keep them in check, they have crowded out native species.

In Puget Sound, Tunicates, or sea squirts, are our greatest threat. They look somewhat like sponges and can completely grow over the sea floor, submerging all life in their way. There are several types, but the *Didemnum* species have been found at three marinas (Edmonds being one). For a great source of information on tunicates, check out the REEF website at www.pnwscuba.com/invasives/index.htm.



Photo by Mary Jo Adams

In April, 2008, Conrad Mussels were found in La Conner attached to a boat from Louisiana. Washington Department of Fish and Wildlife officials blasted the bottom of the boat with superheated, high-pressure water before it was returned to the water and allowed to continue on its way.

Green crabs (pictured on left – notice not always green!) are also of concern. Familiarize yourself with these invasive species threats and remove marine organisms and vegetation from boats and trailers. Contact your Shore Steward Coordinator for information on any of these species.

References / Resources

1. Sound Information: A Boaters Guide, Puget Soundkeeper Alliance and Washington State Parks, 1-800-42PUGET, www.pugetsoundkeeper.org.
2. Boat U.S. Foundation. <http://www.boatus.org/clean-boating/fueling/tips/>

This “Spotlight On” publication was originally a Shore Stewards Newsletter prepared by Chrys Bertolotto, WSU Extension in Snohomish County, originally published in September 2008. Major credit must be given to the Puget Soundkeeper Alliance’s “Sound Information: A Boater’s Guide”.



Shore Stewards is a program of Washington State University Extension.

Extension programs and policies are consistent with federal and state laws and regulations on nondiscrimination regarding race, sex, religion, age, color, creed, national or ethnic origin; physical, mental or sensory disability; marital status, sexual orientation, or status as a Vietnam-era or disabled veteran. Evidence of noncompliance may be reported through your local Extension office.