Starting in Your Home and Yard

Environmentally Responsible Boating

Bright sunshine, cool breezes, a bit of spray as the bow turns into a wave, the chance to swim or fish — these are the small joys of a day on the water whether aboard a small sailboat or a large motor boat. Smelling sewage, seeing oil slicks on the water, or getting the rudder fouled with floating trash quickly ruins the experience. Boating as a recreational activity is truly enhanced by clean water. Most boaters know they share the responsibility for protecting water quality, but the few thoughtless boaters can cause serious water pollution problems.

If potential water pollutants are commonly separated into six major categories (nutrients, pathogens, sediment, toxic chemicals, floatable debris, and thermal stress), improper or careless boating practices can be linked to four of the six categories. Boaters can make a big difference in protecting the waters they use by making simple changes in the way they handle fuel and motor oils, sewage, garbage, and regular boat maintenance.

GARBAGE

Good boaters and backpackers live by the same motto, "bring back what you take out". Tossing anything solid over the side of the boat is a "no-no"; that includes paper, plastic, food, cigarette butts, soda cans, and snarled fishing line. It is ILLEGAL to dump anything plastic into navigable waters all over the world. If your boat is over 26 feet long, the law requires you to post a sign reminding passengers of this law.

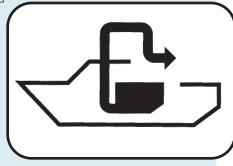
Cut down on the potential for trash going overboard by removing excess wrapping on shore, storing food in reusable containers and using permanent dishes, glasses and utensils on board. Keep trash bags on board and take full bags home or throw them in trash cans or dumpsters with lids. Encourage the marina operator to provide trash and recycling

facilities. Improve your part of the water by picking up trash that floats by whenever you are docked or anchored.

SEWAGE/FISH WASTE

Raw sewage is a major source of pathogens and nutrients. Treating sewage in standard marine toilet systems eliminates the pathogens but can add toxic chemicals and does nothing about the nutrients. It is illegal to discharge untreated sewage into any Connecticut waters. Even treated sewage should not be discharged within three miles of shore. Use the restrooms on shore before setting sail. If the boat

doesn't have a toilet, bring a portable toilet that can be emptied on shore, or include regular "pit stops" every few hours.



If the boat has a toilet, follow the manufacturer's recommended maintenance program and post instructions where they are clearly visible. Keep a trash can in the head; NOTHING should be flushed into the holding tank but waste and toilet paper. Use fast-dissolving marine toilet paper and environmentally friendly holding tank deodorants and disinfectants. At the end of the day, use a mobile or shore-based pump-out facility to empty the holding tank. Look for the national pump-out logo at marinas, or check cruising guides or boating directories.

Dumping fish guts and bait overboard in restricted waters like marina basins adds to the hypoxia or low dissolved oxygen problem in summer months. Live bait, particularly in fresh water areas, has the

Clean Waters is a collaboration of the Connecticut Sea **Grant Extension** Program and the University of Connecticut Cooperative Extension System's NEMO Project, educating individuals about the impacts of everyday activities on water quality and simple techniques that help protect water resources from the home well to Long Island Sound.

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potential to introduce foreign species, like zebra mussels, into new habitats where they cause big problems. Recycle fish waste and bait either by burying it in gardens as fertilizer or freezing it until your next trip.

FUELS AND MOTOR OIL

Millions of gallons of toxic, petroleum-based fuels and lubricants end up in the water every year as the result of small spills related to overfilling fuel tanks or pumping out oily bilge water. Most of these spills can be avoided or quickly cleaned up with proper planning and keeping a few materials on hand.

Avoid over-filling fuel tanks. Don't rely on automatic shut-off nozzles; they may not work fast enough to avoid splash-back. Instead, listen to the filler pipe to know when the tank is near full. Remember that fuel expands in the tank as it warms up and leave a safety margin. Keep an oil absorbent pad handy to clean up

drips. Portable fuel tanks should have their vents closed when not in use to avoid fuel vapor loss. Builtin fuel tanks should have a fuel/air separator in the air vent line to prevent spills through the vent.

Keep the engine properly tuned and maintained for best fuel efficiency and to avoid leaks. Keep a drip pan under the engine if possible. Boats with bilges should have an oil absorbent pillow or bioremediation pad with oil-eating bacteria in place to catch stray oil. Dipose of saturated materials at the marina waste oil recycling station. Never pump out bilge water that has an oily sheen. Avoid bilge cleaners with detergents or emulsifiers. They dissolve the oil into the water, worsening the potential pollution problem.

If you do spill fuel or motor oil in the water, stop the spill immediately, contain the spill with absorbent pads or booms, and call the Coast Guard for assistance. The law states that any spill large enough to create a sheen on the water must be reported.

BOAT MAINTENANCE

Whenever possible, do repairs, painting and general maintenance in dry dock to keep paint chips, solvents and other toxic materials away from the water.

Place tarps under boats when sanding or cleaning boat bottoms so debris can be collected and discarded properly. Use dustless or vacuum sanders to keep hull debris under control.

Recycle used antifreeze, oil and batteries. Encourage marinas to provide appropriate recycling facilities.

Choose the least toxic products available for the job at hand, and buy the minimum quantity necessary to avoid storage and disposal problems. Buy "non-toxic" or "phosphate-free" cleaning products. "Bio-degradable" products may still be toxic. Avoid products containing ammonia, lye or petroleum distil-

> lates. Pink (propylene glycol) antifreeze/coolant is significantly less toxic than the blue-green (ethylene glycol) version.

> Follow product directions and use the least amount of chemical possible for the job. Keep caps on bottles except when pouring to avoid accidental spills. Wipe off cleaner and solvent residues

rather than hosing them over the side. Wash decks with fresh water and wipe down engines frequently to cut down on the need for stronger chemical products. Never dump excess or used chemicals into the water, down a drain or onto the ground. Improperly discarded chemicals make their way back to the water, whether it's your well water or Long Island Sound, and cause serious pollution problems. Solvents and thinners can be used more than once if the solids are allowed to settle out, and the clean product is poured off the top.

Each of these actions may seem so small they won't make a difference, but if every boater and every person who loves the water changes one or two actions, we'll make a big difference in protecting water quality.

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The Connecticut Sea Grant College Program, based at the University of Connecticut, is part of a national network of university-based programs sponsoring coastal and marine-related research, outreach and education.



