

GREEN BOATING GUIDELINES

Boater Responsibility

Boaters play an important role in protecting the health of California's waterways. Boat sewage, graywater, cleaning products, spilled fuel and oil, trash and aquatic invasive species are all potential sources of pollution. Government alone cannot protect California's environment. Every boater must take responsibility for pollution prevention and try to minimize the environmental and public health impacts from boating activities.

For additional information on green boating guidelines beyond that contained in this booklet, visit the following Web site: <http://www.coastal.ca.gov/ccbn/ccbndx.html>.

Boat Maintenance

Products used to wash boat hulls and decks often contain toxic ingredients that are harmful to the marine environment. Degreasers dry the natural oils that fish need for their gills to take in oxygen. Underwater hull cleaning can leave toxic paint residues in harbor sediments.

- Limit in-water maintenance and perform cleaning where debris can be captured and disposed of properly. Marina tenants should check whether or not their marina has established guidelines for the type of boat maintenance work that can be done in the slip.
- Use environmentally friendly cleaning methods and less-toxic, biodegradable cleaning products. Federal law requires that most hazardous products include specific types of information on their labels. Signal words, such as "danger/poison," "warning", or "caution," can give you a general indication of the toxicity of a product. If you want more information on a product's contents, ask your retailer or contact the manufacturer for the Material Safety Data Sheet (MSDS). The MSDS will list any constituents considered a hazardous substance by the federal government. Cross check product contents with the information found in the Proposition 65 list http://oehha.ca.gov/prop65/prop65_list/Newlist.html.
- Do not sand in heavy wind. Sand with vacuum sanders or grinders (not steel wool), which automatically collect and store paint, varnish, or wood dust before it can get into the marine environment (or eyes or lungs). Some boat yards have these tools for rent.
- Avoid products with phosphates, ammonia, lye, sodium hypochlorite (bleach), chlorinated hydrocarbons (methylene chloride, perchloroethylene, or trichloroethylene), and petroleum distillates.
- Keep absorbents or rags within reach to wipe up spills.

- Suspend a tarp or polyethylene sheet between the boat and the dock to catch any spills, dust, or debris that would otherwise end up in the water.
- Consider alternative, non-biocide hull coatings. Clean the bottom with a soft, non-abrasive sponge. Use hull cleaning companies who use green management practices such as monitoring their divers and using non-abrasive scrubbing agents. For more information: ucanr.org/sites/coast/.

ALTERNATIVES TO TOXIC PRODUCTS

Toxic Product	Alternative
Detergent and Soap	Use fresh water and a lot of elbow grease
Bleach	Try hydrogen peroxide
Scouring Powders	Use baking soda or salt
Floor Cleaner	Mix 1 cup white vinegar in 2 gallons water
Window Cleaner	Mix 1 cup vinegar in 1 quart warm water
Varnish Cleaner	Mix ½ cup vinegar and ½ cup water
Head Cleaner	Brush with baking soda
Shower Cleaner	Wet surface and use scouring cloth with baking soda
Aluminum Cleaner	Mix 2 tablespoons cream of tartar in 1 quart of water
Chrome Cleaner/Polish	Clean with apple cider vinegar, polish with baby oil
Fiberglass Stain Remover	Make a baking soda paste
Drain Opener	Disassemble and replace; avoid toxic products
Mildew Remover	Make paste of equal parts lemon juice and salt
Wood Polish	Mix 3 parts olive oil and 1 part white vinegar, or use almond or olive oil (interior unvarnished wood only)

Oil and Gas

Oil and gasoline contain hydrocarbons and heavy metals that pollute and are toxic to aquatic life. Oil can coat the feathers and fur of wildlife, destroying their natural insulation from cold. Once ingested, oil moves up the food chain from tiny plankton to fish, birds and even humans, and can cause reproductive problems, weakness and death.

Even a thin film of oil can kill aquatic organisms that live near the water's surface. The cumulative effect of small spills has a serious impact on coastal and inland waters.

To prevent pollution from oil and gas spills and help maintain a healthy and aesthetically pleasing recreational environment for boaters and others:

- Use caution when filling your fuel tank and don't top off. Know the capacity of your tank and leave it at least 10 percent empty.

- Catch fuel drips with an absorbent pad. Properly dispose of saturated absorbents at a hazardous waste disposal location.
- Don't hose down gas spills or apply detergents or soaps to remove fuel or oil sheen in the water. Using soap for this purpose is both bad for the environment and illegal.
- Install fuel tank vent whistles or fuel/air separators (available at any marine supply store) to avoid spills.
- Inspect fuel lines and hoses periodically. Replace as needed.
- Use funnels for pouring oil and keep a supply of oil absorbent pads onboard for cleaning up spills.
- Dispose of used oil and drained oil filters at a waste oil recycling center.
- If a spill occurs, notify marina management immediately.

All oil and chemical spills must be reported to the National Response Center 800-424-8802 and the State Line 800-OILS911 (800-645-7911). Visit www.earth911.org or call 800-CLEANUP (800-253-2687) for your nearest oil, recycling and hazardous waste disposal center.

Bilge Oil

Ninety percent of oil in marine waters is from small, chronic sources such as bilges, outboard motors, poor fueling procedures, urban run-off and improper disposal of used oil products. You can help protect California's waterways by preventing oily bilge water from being pumped overboard.

- Keep engines well tuned; regularly check seals, gaskets, hoses, and connections for leaks and drips. Change oil filters often.
- Use drip pans with oil absorbent pads while draining oil from the bilges.
- Use an oil absorbent in the bilge to capture unexpected leaks. The absorbents will capture oil before the bilge pump discharges it into the water. Discard used oil absorbents at a household hazardous waste collection center. Also consider installing an oil/water separator.
- Clean and maintain bilges. Do not use detergents while cleaning.
- Don't mix used oil with other substances.
- Precautions: When using oil absorbents in the bilge, secure them to prevent clogging or fouling the bilge pump float or sensor. Oil and fuel are flammable. Keep oil and fuel-saturated absorbents away from heat or sources of ignition and in well-ventilated areas.
- Remove oily bilge water at a bilge pumpout station.

Remember: Under the Harbors and Navigation Code, it is unlawful to discharge oil into or upon the navigable waters of California.

Oily Waste Discharge Placard

Federal law requires all boats 26 feet or longer to display an Oily Waste Discharge Placard in the engine compartment or near the fuel tank. For more information, contact the Coast Guard at www.uscgboating.org.

Aquatic Invasive Species

Non-native aquatic species—plants, fish and animals—are invading our state’s coastal and inland waters. These pests can increase dramatically under the right conditions, displacing native species, clogging waterways, and impacting navigation and recreation. Once introduced, they are nearly impossible to eliminate. Hydrilla, *Egeria densa*, Water Hyacinth, and quagga and zebra mussels are some of the nuisance species that can be accidentally transported by recreational boaters when caught in propellers or intakes or attached to hulls. Controlling these aquatic invasive species is a multi-million dollar problem in California.

You can help prevent the introduction and spread of non-native species from one body of water to another by cleaning, draining and drying your boat and by taking these steps:

- Avoid chopping vegetation with your boat’s propeller.
- Inspect your boat and remove aquatic plants or animals before you leave any body of water.
- Inspect all exposed surfaces. Small mussels feel like sandpaper to the touch.
- Wash the hull of each watercraft thoroughly.
- Drain all water and dry all areas.
- Drain and dry the lower outboard unit.
- Clean and dry all live-wells.
- Empty and dry any buckets.
- Dispose of all bait in the trash.
- There are specific drying times that need to be calculated by each boater. Please refer to www.100thmeridian.org/Emersion.asp to calculate.

Be sure to report new infestations of non-native aquatic species to the U.S. Fish and Wildlife Service at (209) 946-6400. Visit www.dbw.ca.gov for more information on quagga and zebra mussels or call (866) 440-9530.

Restrictions on California’s Waterways

Quagga and Zebra Mussels: Inspections are determined by county or local municipalities, and in some cases, by the Department of Parks and Recreation. Boaters should check ahead to see whether boat inspections will be required.

Solid Waste and Marine Debris

Trash in the water or washed up on a beach is unsightly and can injure or kill birds, fish and marine mammals. Ingestion of plastic waste or entanglement in fishing lines and nets can result in mortalities. Floating debris and solid objects may cause structural boat damage or mechanical failures.

As a boater, you can help keep our waters clean and prevent fish and wildlife injuries by managing and disposing of all solid waste properly.

- Never throw trash overboard.
- Prevent plastic bags, drink cans and loose items from blowing overboard.
- Carry a trash bag and bring whatever you take out back to port for proper disposal.
- Take reusable containers and recycle paper, cans and bottles.
- Encourage your marina to provide trash cans with lids and recycling bins.
- While on your boat, pick up any litter or marine debris that can be safely reached with a net and dispose of it properly. Participate in a local beach or marina cleanup event. Call 800-CLEANUP or visit coastforu.org for organized events in your area.

Note: Under the Maritime Pollution Act (MARPOL) International Convention to Prevent Pollution From Ships and U.S. federal regulations, it is illegal for any vessel to discharge plastics or garbage containing plastics into U.S. navigable waters.

Don't let fishing lines, polystyrene, plastic bags, or six-pack rings get released or blown overboard. Stow trash securely and always bring it back to shore. Cigarette butts are the most common type of litter found washed up on beaches and are not biodegradable. Place extinguished cigarette butts in the trash. Take used monofilament fishing line back to a recycle bin at a participating boating facility: <http://g.co/maps/brqvkk>.

Marine Pollution Placard

Federal law now requires all boats 26 feet or more in length, when operating in waters under U.S. jurisdiction, to display an informational placard on federal marine pollution prevention laws. You must display the required placard detailing these prohibitions in a prominent location where passengers and crew can read it. Placards must be at least nine inches wide by four inches high and made of durable material bearing letters at least 1/8 inch high. They can be purchased at marine supply dealers.

MARINE POLLUTION (MARPOL) REGULATIONS

Lakes, Rivers, Bays, Sounds and 3 miles from shore



NOT LEGAL
Plastic and any garbage other than graywater or dishwater

LEGAL
Graywater (drainage from shower, laundry, bath and wash basin drains), dishwater (liquid drainage from manual or automatic washing of cooking utensils)



3 to 12 miles from shore



NOT LEGAL
Plastic and if 1 square inch or larger: food waste, paper, rags, glass, crockery, metal, dunnage (lining & packing materials that float)

LEGAL
Graywater, dishwater, and if ground to pieces smaller than 1 square inch: food waste, paper, rags, glass, crockery, metal



12 to 25 miles from shore



NOT LEGAL
Plastic and dunnage (lining & packing materials that float)

LEGAL
Graywater, dishwater, food waste, paper, rags, glass, crockery, metal



Outside 25 miles from shore



NOT LEGAL
Plastic

LEGAL
Graywater, dishwater, food waste, crockery, metal, dunnage (lining & packing materials that float)

Household Hazardous Waste

Topside and anti-fouling paints, wood preservatives, lacquers, solvents, batteries, used oil, zinc anodes and out-of-date flares are typical hazardous wastes generated by boaters. Some are suspected carcinogens, and all are toxic to humans and aquatic life. Do your part to control household hazardous waste.

- Use non-toxic, biodegradable products when possible.
- Never dispose of hazardous wastes in the trash, water or gutter.
- Use the smallest amount of a toxic product necessary to do the job.
- Place ignitable paint waste and old gasoline in closed containers to prevent pollution or fire.
- Check with your marina before disposing of used oil or other hazardous wastes. Some marinas provide recycling/disposal service.

All boaters must dispose of hazardous waste properly. Call 800-CLEANUP (800-253-2687), visit earth911.org, or contact your local solid waste authority for instructions on how and where to properly dispose of household hazardous waste and to find a disposal location near you.

Sewage

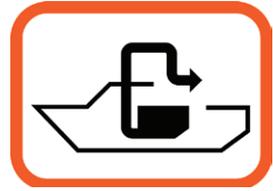
Untreated sewage discharged from boats can spread diseases, contaminate shellfish beds and lower oxygen levels in water. Exposure to sewage-polluted water can result in gastroenteritis, hepatitis, dysentery and cholera. Discharging raw sewage into any of California's lakes, rivers, reservoirs or coastal waters within three miles of shore is prohibited within U.S. navigable waters. State law also prohibits dumping any human waste (treated or untreated) in a marina, yacht harbor, fresh water lake, or fresh water impoundment from any vessel tied to any dock, slip or wharf that has toilet facilities available for the use of people on the vessel.

A state or local peace officer who reasonably suspects that a vessel is discharging sewage in a prohibited area may board that vessel, if the owner or operator is aboard, to inspect the MSD for proper operation and to place a dye tablet in the holding tank.

One of DBW's goals is to eliminate overboard discharge of sewage through increased use of pumpout facilities and porta-potty dump stations. You can help by:

- Never dumping raw sewage into California waters.
- Using public toilets onshore before departing.
- Using a pumpout facility to dispose of holding tank wastes.

- On small boats, using a porta-potty and disposing of wastes in an onshore dump station or toilet.
- Keeping the “Y” valve properly secured in the closed position (to prevent accidental discharge) when navigating inland waters or less than three miles offshore.
- Reducing the use of chemical additives containing formaldehyde, quaternary ammonia and chlorine.



PUMPOUT STATION

For California pumpout locations, visit www.dbw.ca.gov and click on the “Environment” tab. Visit www.coastal.ca.gov/ccbn/marinaoilsewage.pdf for mobile boat-to-boat services.

No Discharge Areas

It is illegal to release wastes, treated or not, into a federally designated *No Discharge Area*. Your marine sanitation device (MSD) must be connected to a holding tank or secured to prevent all sewage discharges.

California’s No Discharge Areas are:

- El Dorado County: Lake Tahoe
- Los Angeles County: Avalon Bay Harbor
- Marin County: Richardson Bay
- Orange County: Dana Point Harbor; Huntington Harbor; Newport Bay (Upper and Lower); Sunset Bay
- Placer County: Lake Tahoe
- San Diego County: Mission Bay; Oceanside Harbor; San Diego Bay
- Ventura County: Channel Islands Harbor

Graywater

Water from onboard sinks, washers and showers is called graywater, which is discharged directly into the water without treatment. Graywater is often full of phosphates that pollute the water and encourage the growth of unwanted algae. The discharge of graywater is prohibited in some harbors and marinas. Check with marina personnel for local restrictions.

To help reduce the amount of graywater discharged:

- Use shore-side laundry facilities and showers whenever possible.
- Limit the amount of water you use in your boat’s sinks and showers.
- Use non-phosphate and biodegradable soaps.
- Use the smallest amount of a cleaning product to get the job done.

Fish Waste Management

The amount of fish waste disposed into a small, enclosed basin can exceed amounts found naturally in the water. In small quantities, this fish waste is eaten by scavenging fish and is not a problem. In large amounts where water circulation is restricted, decomposition of fish waste can deplete the water of dissolved oxygen, leading to water quality degradation and fish kills. “Fish feeding” with bait or cleaned fish loads basins with nutrients and can disrupt the feeding behavior of wild animals or spread disease among them.

- Always practice proper fish-cleaning methods and proper disposal of fish wastes.
- Dispose of unwanted bait at sea.
- Gut fish and dispose of the contents at sea.
- Use fish cleaning stations with trash receptacles and wastewater hookups.

Waste Management Plan

All U.S. vessels 40 feet or more in length and equipped with a galley and berthing must carry a written Waste Management Plan if the vessel operates beyond three miles from shore. The Waste Management Plan must designate the person in charge of carrying out the plan and describe procedures for collecting, processing, storing and properly disposing of garbage in keeping with the prohibitions listed on page 51.

Marine Protected Areas

The Marine Life Protection Act (MLPA) directs the state to re-evaluate and redesign California’s system of Marine Protected Areas (MPAs) to: (1) increase coherence and effectiveness in protecting the state’s marine life and habitats, marine ecosystems, and marine natural heritage; and (2) improve recreational, educational and study opportunities provided by marine ecosystems subject to minimal human disturbance. The MLPA also requires that the



Photo Ralph Wessel

best readily available science be used in the redesign process as well as the advice and assistance of scientists, resource managers, experts, stakeholders and the public.

California is taking a regional approach to redesigning MPAs along its 1,100 mile coastline and has divided the state into five study regions. Please visit www.dfg.ca.gov/mlpa/maps.asp for information on the individual study regions, including maps.

Proper Vessel Disposal

Proper vessel disposal is a vital part of clean and responsible boating. Because there are several environmental hazards associated with old vessels, including used oil, solvents and used batteries, it is important that you properly dispose of your vessel at the appropriate time.

Never abandon or sink your vessel to dispose of it; not only does it pose an environmental and navigational hazard on our state's waterways but also it is illegal. Failure to comply with the law is punishable by a fine of up to \$3,000.

There are several options for proper vessel disposal: donation, recycling, dismantling, and DBW's Vessel Turn-In Program.

Donation: Some charities accept motorboats, sailboats, personal watercraft, and other vessels, as tax-deductible donations. The boat will generally need to be in decent condition to use as a donation.

Recycling: Used boat part dealers, or salvagers, may accept your old vessel for its parts, which they resell. Each dealer will compensate the boat owner for the value of the useable parts minus the total cost of dismantling the vessel and recycling or disposing of hazardous wastes; however each dealer has its own specific requirements for the length and type of vessel they will accept.

Dismantling: Some used boat dealers will dismantle and dispose of a vessel that has no redeemable value. Each dealer has its own requirements for vessel length and type, and each dealer will charge for this service. The costs usually run between \$15 and \$20 per foot and include transportation, labor, disposal, and recycling or disposing of used oil and other hazardous materials.

Vessel Turn-In Program: Check with your local public agencies to see if they're participating in DBW's Vessel Turn-in Program.