

# Eco-Friendly Boating



## Fact Sheet

### CHECKLIST FOR GOOD BOATING AND CLEAN WATER

Clean water is the foundation for enjoyable boating; every action from an individual boater has a major impact on the water, marine life, and the near-shore and shoreline ecosystem and inhabitants. Some boating activities that impact the environment are: boat sewage, litter, and fish waste disposal; fueling and bilge care; boat repair and maintenance; engine servicing, hull cleaning and painting; and boat operation.

The information in this publication serves as a guide for boaters to review their own responsibilities and identify potential areas in which boating-related activities could be improved to protect our precious and fragile environment. As you implement pollution prevention ideas, you and your fellow boaters will identify more ideas. Your success is only limited by your willingness to try something different, and the payoff could be immense!

### General Pollution Prevention Activities and Waste Reduction Tips

- ↓ Separate paper, metals, glass, plastics, cardboard, shrink wrap, and other recyclables from solid waste and implement a recycling program. Debris such as plastic can choke and suffocate aquatic life such as fish and turtles. Don't litter on land or water.

- ↓ Participate in a hazardous waste collection program – include antifreeze, paint, thinner, oil, oil filters, bilge water, batteries, gasoline, fluids, solvents, and oily rags. Keep used solvents separate from used oil. Never mix different wastes. Never pour hazardous materials down the drain, on the ground, or into the surface water.
- ↓ Observe state and federal marine toilet rules. Keep disease-carrying bacteria out of the water by using holding tank pump outs, and always pump out on shore. To locate a pump out station near you, call the Michigan Department of Natural Resources District or Field Office.
- ↓ Purchase a reusable canvas cover for boat storage. This will reduce waste generated by using shrink wrap; however, if you do use shrink wrap, participate in a shrink wrap recycle program.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
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**Environmental Assistance Center**

**1-800-662-9278**

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⚓ Look for marinas offering a closed-loop hull-blasting system for hull servicing. Use only dustless vacuum sanders. Always perform boat repairs at an off-site location away from the water to avoid potential environmental harm to coastal waters. Cover the ground with tarp and skirt the hull while servicing. When done, properly dispose of paints and paint chips.

⚓ Know and use environmentally friendly bottom paints such as those containing vinyl, silicone or Teflon, or containing organic ingredients such as cayenne pepper. Protect the paint surface regularly with a coat of slick bottom wax. Avoid ablative, non-ablative (sloughing), and hard anti-fouling paints containing toxic metals such as copper, mercury, arsenic, or TBT, pesticides, or biocides. State and federal regulations prohibit the use of toxic organotin anti-fouling paints such as tributyltin (TBT)-based paints.

⚓ Use drip pans or trays when changing fluids or working on engines. Keep motors finely tuned to increase fuel efficiency, reduce consumption, and discharge fewer pollutants into waterways. Prevent boat repair waste from contaminating stormwater runoff.



⚓ Locate a marina that offers a bottom wash recycle system. Use a phosphate-free, biodegradable cleaning agent. Nutrients such as phosphorus and nitrogen contribute to algae blooms and other nuisance plant growth, making lakes and streams harmful to fish and limiting boating and other water recreation

activities. Careful use of cleaning substances is essential to keep them from entering the surface water. Avoid cleaners that emulsify or contain phosphates, ammonia, chlorine, caustic soda, surfactants, or potassium hydroxide; and eliminate in-water hull cleaning. Read the labels and be aware of what they mean.

⚓ Properly maintain the engine; use non-toxic bilge cleaners and/or bilge pillows that digest hydrocarbons. You may also use untreated bilge pillows or oil-absorbing sponges. Properly dispose of any oil-absorbing sponge or pillow after use. Control accidental losses of oil or other polluting materials. One quart of oil can contaminate up to two million gallons of water. Control bilge water to keep oil from being pumped overboard. Avoid bilge cleaners that emulsify or contain phosphates, ammonia, chlorine, caustic soda, surfactants, or potassium hydroxide, or cleaners that break down oil into microscopic fragments. Never use detergents or degreasers to clean the bilge.

⚓ Prevent gasoline and diesel fuels from entering the surface waters and creating toxic slicks in the water. Never top off tanks when fueling.

⚓ Zebra mussels, ruffe, spiny water fleas, and Eurasian milfoil are four destructive and aggressive invader species looking for a ride to a new lake or stream. People, boats, and fishing gear easily transport these pests. Prevent the spread of exotic species, which cause severe



habitat alteration and degradation, with a thorough inspection of your boat and fishing gear. Clean all mud and plant debris from your boat's hull, trailer, propeller, motor, bilge, live well, and anchors before leaving the boat launch. Properly dispose of collected material.

- ↴ Boat wakes contribute to shoreline erosion and can stir up bottom sediments reducing light essential to submerged aquatic vegetation. Stirring up sediments will cause the water to become cloudy, or turbid, damaging fish gills and making it difficult for fish and aquatic insects to see, breathe, and feed properly. Avoid wakes and propeller washes by reducing boat speed before reaching speed buoys.



- ↴ Use suitable facilities for fish wastes. Recycle fish wastes by using in compost and gardens. State regulations prohibit the dumping of fish wastes into surface waters.
- ↴ Pet wastes left on the ground are carried away by storm water, contributing harmful bacteria, parasites, and viruses to our waters. Therefore, pet owners should use designated dog runs and disposable bags for clean up after pets.

### Pollution Prevention Resources

#### Publications and Information Sources:

- ↴ Michigan Department of Environmental Quality  
Environmental Assistance Division  
Environmental Assistance Center  
P. O. Box 30457  
Lansing, MI 48909-7957  
1-800-662-9278



- ↴ Michigan Department of Environmental Quality  
Office of the Great Lakes  
P. O. Box 30473  
Lansing, MI 48909-7973  
517-373-3588

- ↴ NMMA  
Water Watch  
200 E. Randolph Drive, Suite 5100  
Chicago, IL 60601-6528

*Write to receive a complimentary copy of "Water Watch."*

- ↴ Michigan Sea Grant College Program  
2200 Bonisteel Boulevard  
Ann Arbor, MI 48109-2099  
(313) 764-1138

#### Web Sites:

- ↴ [www.deq.state.mi.us/ead](http://www.deq.state.mi.us/ead)  
*Michigan Department of Environmental Quality  
Environmental Assistance Division*



Oversees a number of assistance and information activities leading to improvement in environmental quality, with an emphasis on pollution prevention.

- ↴ [www.MEEF.org](http://www.MEEF.org)  
*Marine Environmental Education Foundation Inc.*

Creator and national organizing sponsor of the National Clean Boating Campaign. Provides educational information which result in cleaner water for the boating public.

- ↴ [www.pacific.ccg-gcc.gc.ca/Epages/offboat/pae/pme.htm](http://www.pacific.ccg-gcc.gc.ca/Epages/offboat/pae/pme.htm)  
*Canadian Coast Guard's "Protecting the Aquatic Environment: A Boater's Guide"*

Highlights boat maintenance, garbage, fueling, antifreeze, paint, batteries, introduced species, and spill reporting.

↙ [www.cmc-ocean.org/search.html](http://www.cmc-ocean.org/search.html)  
Searchable for “boats” on clean up campaigns, youth educational activities on boats and the environment.

↙ [ceres.ca.gov/coastalcomm/web/boatbib.html#FACT](http://ceres.ca.gov/coastalcomm/web/boatbib.html#FACT)  
*“Annotated Bibliography of Marina and Recreational Boater Pollution Education Material”*

↙ [www.dnr.state.oh.us/odnr/watercraft/laws/opsguide/envir.html](http://www.dnr.state.oh.us/odnr/watercraft/laws/opsguide/envir.html)  
*“Boating and Environment”*  
Ohio Department of Natural Resources; clean boating tips and information.

↙ [seagrant.gso.uri.edu/riseagrant/Rhode Island Sea Grant](http://seagrant.gso.uri.edu/riseagrant/Rhode%20Island%20Sea%20Grant)  
Offering publications on-line about marina and boating environmental management, including fact sheets on sanding and painting, vessel sewage, bilges and fueling, engine maintenance, and vessel cleaning and fish waste.

↙ [nsgd.gso.uri.edu](http://nsgd.gso.uri.edu)  
*National Sea Grant National Depository*  
Searchable archive of all Sea Grant funded documents since 1967, including hundreds of studies on boating, marinas and the environment, plus brochures and fact sheets.

↙ [www.dot.gov/dotinfo/uscg/hq/g-m/nmc/seapart.htm](http://www.dot.gov/dotinfo/uscg/hq/g-m/nmc/seapart.htm)  
*US Coast Guard Sea Partners*  
Environmental education and outreach program focused on communities to develop awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations.

↙ [www.dnr.state.mi.us](http://www.dnr.state.mi.us)  
*Michigan Department of Natural Resources (DNR)*  
The DNR offers a variety of brochures, fact sheets, guides, newsletters, and reports designed to inform the media, public, educators, and business people about Michigan's natural resources.

↙ [www.greatlakesportsocall.com](http://www.greatlakesportsocall.com)  
Link to boating on the Great Lakes featuring several ports on the Great Lakes.

↙ [www.MidwestConnection.com](http://www.MidwestConnection.com)  
Helpful and free Internet guide to the public containing information on state and private harbors and ports of call, lighthouses, scuba diving and shipwrecks, fishing, and additional related items throughout the Great Lakes region.

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