How to minimize environmental impacts

As a boater, you are well aware of the care your investment requires. In order to keep your boat safe, reliable, and attractive, you must continually clean and maintain it. As you do so, you can minimize environmental impacts by following the recommendations listed here.

Caution is necessary because your choice of products and activities can have serious impacts on water quality and aquatic life. For example, if paint chips from a hull are not contained, they may end up in the water. The heavy metals in the paint chips may then be consumed by bottom dwelling creatures and passed up the food chain to fish, birds, and eventually humans.

Clean Carefully

- Wash frequently with a sponge or nonabrasive pad and plain water. A rinse can help stop growth and will extend the life of the protective coating. Additional “elbow grease” is required to remove stains.
- When detergents are necessary, use soaps that are phosphate free, biodegradable, and nontoxic. Any soap should be used sparingly because even nontoxic products can be harmful to wildlife. For example, detergents will destroy the natural oils on fish gills, limiting their ability to breathe.
- Wax your boat, if appropriate. A good coat of wax prevents surface dirt from becoming ingrained.
- Clean teak with a mild soap and abrasive pads or bronze wool. This method is safe for the environment and better for the boat than the solvents in standard teak cleaners, which tend to eat away at the wood and to damage seam compounds.
- Avoid detergents that contain ammonia, sodium hypochlorite, chlorinated solvents (bleach), petroleum distillates, and lye.
- Try some of the alternative cleaning products such as baking soda, vinegar, lemon juice, and borax.
- Select the least toxic product to complete the job.
- Participate in a boaters material exchange system to get rid of leftover products and materials.

Appropriate Maintenance

- Collect all paint chips, dust, and residue. Dispose in regular trash.
- Reuse leftover paint and varnish.
- Use less toxic propylene glycol antifreeze.
- Select a bottom paint developed for the Great Lakes region.

Recycle Regularly

- Recycle used oil, oil filters, antifreeze and shrink-wrap.
- Bring used solvents and waste gasoline to local hazardous waste collection days.
- Visit the Michigan Department of Environmental Quality’s web page for local recycling and hazardous waste contacts. See: www.michigan.gov/deq
- Visit the Michigan Clean Marina website for information about shrink-wrap recycling. See: www.michigancleanmarina.org

Be a Conscientious Consumer

- Read product labels. Labels convey information about the degree of hazard associated with a particular product. For example, DANGER equates to extremely flammable, corrosive or toxic; WARNING indicates that the material is moderately hazardous; and CAUTION signals a less hazardous product. Select products that contain no warnings or which merely caution consumers.
- Be wary of unqualified general claims of environmental benefit, such as “green” or “ozone friendly.”
- For additional information about environmentally responsible products, contact Green Seal. Green Seal is an independent, nonprofit organization that sets environmental standards for consumer goods. Products that meet their criteria are awarded a “Green Seal of Approval.” Search Green Seal’s database of Green Seal certified, environmentally responsible products. See: www.greenseal.org or call (202) 872-6400.

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ALTERNATIVES TO TOXIC PRODUCTS

While baking soda, vinegar, lemon juice, and vegetable oils are far less harmful than bleaches, scouring powders, or detergents, they are still toxic to marine life. Use cleaning products sparingly and minimize the amount discharged into the water. Never dispose of any cleaning products down the thru-hull drain; dispose of them on shore.

<table>
<thead>
<tr>
<th>Product</th>
<th>Alternative</th>
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<tbody>
<tr>
<td>Bleach</td>
<td>Borax or hydrogen peroxide</td>
</tr>
<tr>
<td>Detergent &amp; Soap</td>
<td>Elbow grease</td>
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<tr>
<td>Scouring Powders</td>
<td>Baking soda. Or rub area with one-half lemon dipped in borax, then rinse</td>
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<tr>
<td>General Cleaner</td>
<td>Baking soda and vinegar. Or lemon juice combined with borax paste</td>
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<tr>
<td>Floor Cleaner</td>
<td>One cup vinegar + 2 gallons of water</td>
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<tr>
<td>Window Cleaner</td>
<td>One cup vinegar + 1 qt. warm water. Rinse and squeegee</td>
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<tr>
<td>Aluminum Cleaner</td>
<td>2 Tbsp. cream of tartar + 1 qt. of hot water</td>
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<tr>
<td>Brass Cleaner</td>
<td>Worcestershire sauce. Or paste made of equal amounts of salt, vinegar, and water</td>
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<tr>
<td>Copper Cleaner</td>
<td>Lemon juice and water. Or paste of lemon juice, salt, and flour</td>
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<tr>
<td>Chrome Cleaner/Polish</td>
<td>Apple cider vinegar to clean; baby oil to polish</td>
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<tr>
<td>Stainless Steel Cleaner</td>
<td>Baking soda or mineral oil for polishing, vinegar to remove spots</td>
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<tr>
<td>Fiberglass Stain Remover</td>
<td>Baking soda paste</td>
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<tr>
<td>Mildew Remover</td>
<td>Make a paste with equal amounts of lemon juice and salt, or white vinegar and salt</td>
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<tr>
<td>Drain Opener</td>
<td>Disassemble or use plumber's snake. Or flush with boiling water + one-quarter cup baking soda + one-quarter cup vinegar</td>
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<tr>
<td>Wood Polish</td>
<td>Olive or almond oil (interior walls only)</td>
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<tr>
<td>Hand Cleaner</td>
<td>Baby oil or margarine will dissolve through grease and dirt</td>
</tr>
<tr>
<td>Bathroom &amp; Shower</td>
<td>Baking soda; brush thoroughly</td>
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<tr>
<td>Rug/Upholstery Cleaner</td>
<td>Dry corn starch sprinkled on; vacuum off</td>
</tr>
</tbody>
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