

California Coastal Nonpoint Source Program Water Quality Fact Sheet¹

BOAT CLEANING AND MAINTENANCE

Background

Boat owners that keep their vessels well-maintained can help conserve water quality at marinas. However, boat maintenance and cleaning activities may contribute to water quality impairment if inappropriate methods or materials are used. Marinas or yacht clubs (hereafter marinas²) may have designated areas onshore for cleaning and minor maintenance activities. Hauling a boat out of the water for cleaning and maintenance can prevent water pollution, but is not always feasible. Major repairs or maintenance activities should be restricted to boatyards which are subject to industrial stormwater permits and have specialized equipment and best management practices to keep pollutants out of the water. Without proper design and upkeep, pollutants from boat maintenance and cleaning on land may indirectly enter the water through surface runoff, wind, or underground seepage. Marinas and boatyards should be designed and maintained so that pollutants discharged onshore are captured for proper treatment or disposal.

When boat cleaning and maintenance is conducted while the boat is in water, precautions should be used to protect water quality. Pollution prevention for recreational boat cleaning and maintenance in marinas starts with two basic measures. First, wherever possible, boaters should select non-toxic, low nutrient cleaning products that do not harm humans or aquatic life. Second, boaters and marina operators should implement protective practices to prevent cleaning products from entering the water.

Choose Non-toxic, Phosphate-free and Biodegradable Cleaning Products

Boaters may choose to purchase non-toxic, phosphate-free, and biodegradable alternatives to common cleaning products. Caustic chemicals such as lye, bleach, and ammonia, and petroleum products should not be used where they can enter the water. Simple alternative cleaning products such as baking soda, vinegar, lemon juice, and vegetable oils are less harmful. However, these products should be used sparingly and discharge into water avoided because they may also adversely impact aquatic life. The [California Clean Marina Toolkit](#) (California Coastal Commission, 2004) and the [Pollution Prevention Toolkit for Maritime Industries](#) (San Francisco Department of Public Health, 2011) describe methods to implement pollution prevention strategies at marinas, and eliminate or reduce hazardous waste generation.

Keep Cleaning Products Out of the Water

¹ This fact sheet addresses best management practices (BMPs) for cleaning and maintenance of the superstructure and decks of boats in marinas. Management practices for hull painting and removal of fouling organisms are covered in a separate factsheet.

² State agencies typically use the term “marina” to refer to a commercial facility with 10 or more slips, but most of the BMPs in this factsheet are also appropriate for smaller and non-commercial facilities.

Pollution prevention can be accomplished by maintaining a physical barrier or containment system around the work area to control direct discharge, surface runoff, or wind dispersal of harmful chemicals into water. Practices that marinas and boaters can implement to keep boat maintenance products and debris from entering the water include: using drop clothes under work areas; plugging any openings that drain to the water during maintenance; vacuuming or sweeping loose debris (e.g., paint chips) for proper disposal; following all legal requirements regarding management of oil, fuel and sewage; recycling applicable waste; and discarding hazardous materials in proper receptacles.

Pollution Prevention for Boat Maintenance

Boaters can reduce adverse impacts to coastal waters by using appropriate methods during application and disposal of cleaning and maintenance products. Simple measures can be used to prevent cleaning products, fuel, lubricants and vessel wastes from entering the water. Preventative boat maintenance measures, such as regular engine inspection and repair can help prevent leaks into the bilge. Facilities that provide specified maintenance locations on land should require practices that prevent pollutants from entering the water (e.g., require electric sanders to be equipped with a vacuum dust collector).

Whether or not the marina provides on-site collection facilities, boaters are responsible for proper disposal or recycling of hazardous materials and trash, including fish and pet waste. However, marinas are encouraged to provide on-site collection facilities in the form of separate waste collection containers for trash, recyclable materials and hazardous materials. If disposal facilities for hazardous materials are not provided, the marina should post visible signs directing boaters to local disposal facilities or services.

Recommended Marina Best Management Practices for Cleaning and Maintaining Boats in Marinas

The following Best Management Practices (BMPs) are recommended for boaters to help protect water quality in their marinas. They are based, in part, on the criteria set forth by the California Clean Marina Program (CMP), a group developed and led by the California marina industry. The CMP sets standards for certified Clean Marinas to help protect water quality by implementing best management practices for marina operations including boat maintenance and cleaning, waste management, storm water runoff and petroleum containment.

Boat Maintenance and Cleaning BMPs

- Use non-toxic, phosphate-free and biodegradable detergents and cleaning products for washing boats. Keep quantities used to a minimum.
- Do not use detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, strong acids or lye where they could be released to the water.

- If you use onshore repair and maintenance facilities follow marina rules or policies governing use of these facilities.
- Follow marina policies and rules for the amounts and types of maintenance work allowed over the water.
- Do not discharge oily bilge water to marina waters. Use preventive engine maintenance, oil absorbents, bilge pump-out services, or steam cleaning services reduce the chances of oily bilge water discharges.
- Do not conduct maintenance in the slip or onshore that could result in discharge of debris (e.g., paint chips, plastic particles) or polluted runoff into marina waters.
- Stay informed of the legal methods for disposal of waste, including maintenance debris and comply with these methods. Your marina or yacht club should be able to provide you with that information.
- Immediately inform marina operators of pollution or debris in the water so that the discharge can be stopped and cleanup or containment may be initiated.
- Do not leave unattended open containers of paint and other maintenance supplies on the docks.
- Do not use detergents or emulsifiers on fuel spills. Its against the law. Report fuel spill to marina operators who will inform local authorities.
- Obtain a copy of the water quality protection policies from your marina and make sure maintenance contractors that work on your boat are informed of these policies.
- Ask subcontractors whether they have read the marina's water quality protection policies. Require that subcontractors comply with these policies while working on your boat.
- Stay informed on the water quality benefits of non-toxic hull paints and consider using them on your boat.
- Ask hull-cleaning subcontractors what methods they use to protect your paint and water quality.
- Make use of bilge pump out facilities if your boat's bilge needs extensive cleaning (e.g., due to spills or long term accumulation of engine fuels, lubricants or other liquid materials).
- Dispose of wastes in accordance with all local, state and federal laws and regulations.
- Do not conduct vehicle washing and maintenance in marina parking lots.

- Do not conduct vessel washing and maintenance onshore except in areas designated by the marina and follow marina rules for use of those areas.

Additional Resources

- For information regarding Clean Marina certification, visit the [California Clean Marinas Program](#) website. Access the [Clean Marina Program manual](#) for more information on marina best management practices.
- The California Coastal Commission and the Department of Boating and Waterways support a volunteer education program to help protect marina water quality called the [Dockwalkers](#) program.
- The California Coastal Commission also maintains the [Boating Clean and Green Campaign](#) website.
- The [California Clean Marina Toolkit](#) was developed to help marina operators develop environmentally friendly practices and conditions.