

Introduction

This guidebook provides guidance to some environmentally friendly practices for marina/boatyard facilities. As the framework of the South Carolina Clean Marina/Boatyard Program, this guidebook outlines a suite of best management practices for marina facilities, and the process by which a facility can become a certified South Carolina Clean Marina/Boatyard.

Non-point source pollution

While point sources of pollution – those that come from a discrete point of discharge – remain a source of water quality degradation, it is non-point sources – pollution from diffuse sources – that have become the leading cause of water quality impairment in the United States (EPA, 2002). In general, non-point source pollution results from snow or rain runoff transporting pollution from farming, urban areas, forestry, construction, paved areas, mining sites, and other activities and areas to waterbodies.

Based on the 2001-2002 findings of the South Carolina Estuarine and Coastal Assessment Program' integrated water quality measurement, 73% of tidal creeks showed good water quality, 22% had fair water quality, and 5% had poor water quality. In contrast, 88% of the open water habitats had good water quality, 12% showed fair water quality and none had poor water quality (Van Dolah et al, 2004). The SCDHEC Shellfish Sanitation Program recently reported that “[t]he 2005 current report year levels of *Approved* acreage indicate a moderate decrease from that of 2004, while a similar moderate increase in *Restricted* acreage is observed. However, data review continues to indicate relative stability within all classification types throughout the 1986 - 2005 trend review period. Variations may occur on a yearly basis within any classification type. *Approved* and *Restricted* classifications are typically affected by rainfall runoff and river flow” (SCDHEC-BOW, 2006).

Non-point sources pollute marine environments by adding excess nutrients, sediments, and toxicants. Excess nutrients can cause weedy plant growth and algal blooms, which can lead to low dissolved oxygen, poor water clarity, and inhibition of aquatic plant growth. Toxicants can cause negative human and aquatic organism health effects. Excess sediments can lead to poor water clarity. Each of these effects results in a negative impact on aquatic organisms and the ecosystem in which they live – and therefore disrupt the environment that humans enjoy and depend on.

Why marinas/boatyards?

The congregation of recreational boats at marinas, the activities that often occur at marinas and boatyards, and the physical location of marinas and boatyards in and near the water can result in significant local impacts to water quality.

Because pollutants from upstream in the watershed often flow through the land and water of the marina, water quality at a marina is often a reflection of not only pollutants generated at the marina but also of pollutants resulting from several watershed sources. While this “offsite” pollution production is something to be acknowledged, the pollution generated from marina activities, marina and boatyard facilities, and the boats themselves must also be addressed.

Pollutants which are often generated at a marina and which could enter a marina basin include:

- ◆ Petroleum hydrocarbons from fuel, oil drippings, and from solvents
- ◆ Nutrients and pathogens from overboard sewage discharge and pet waste
- ◆ Toxic metal from anti-foulants and hull and boat maintenance debris
- ◆ Liquid and solid wastes from engine and hull maintenance and general marina activities
- ◆ Sediments from parking lot runoff and shoreline erosion
- ◆ Fish waste from dockside fish cleaning (EPA, 2001)

The input of pollutants from both marinas and from upstream in the watershed is exacerbated since most marinas are situated in areas protected from the wind and waves and where the currents are slower. These protected basins are often poorly flushed and therefore more susceptible to damage by pollutants.

What is the Clean Marina/Boatyard Program?

The goal of the South Carolina Clean Marina/Boatyard Program is to protect and improve local water quality of South Carolina waters by reducing pollution from marinas.

The South Carolina Clean Marina/Boatyard Program provides the opportunity for marinas, boatyards, and yacht clubs to receive recognition for helping to establish and promote a cleaner marine environment for South Carolina.

If a facility (which will be referred to as a marina throughout this guidebook) is in compliance with environmental regulations and uses a high percentage of the recommended practices, it can be designated as a South Carolina Clean Marina/Boatyard. Such certified marinas are authorized to fly the Clean Marina flag and use the logo in their advertising. The flag is a signal to boaters that a marina cares about the cleanliness of area waterways.

The South Carolina Clean Marina/Boatyard Program is part of a much larger effort to reduce non-point sources of pollution throughout the state in part to address the requirements of the Environmental Protection Agency and the National Oceanic and Atmospheric Administration under Section 319 of the 1987 amendments to the Clean Water Act and Section 6217 of the Federal Coastal Zone Act Reauthorization Amendments of 1990.

Why participate in the Clean Marina/Boatyard Program?

The South Carolina Clean Marina/Boatyard Program provides the opportunity to proactively maintain clean water for the benefit of your facility and future generations.

Ultimately, we feel the Clean Marina/Boatyard program will be good for your business. How?

Having a Clean Marina/Boatyard certification:

- ◆ Recognizes you for doing your part to protect water quality.
- ◆ May ensure your facility is in compliance with environmental regulations.
- ◆ Could encourage responsible boaters to patronize your establishment.
- ◆ Provides guidelines with which to educate your staff and patrons on effective best management practices.
- ◆ May make your marina more aesthetically attractive by reducing odor and visual impairments.
- ◆ Adds you to a published list of Clean Marina/Boatyard facilities and provides a link to your facility's website on the SCMA website (www.scmarine.org) and the DHEC-OCRM website (www.scdhec.gov/environment/clean_marina.htm)
- ◆ Could reduce pollution clean up costs.
- ◆ Makes you eligible for grant money and free technical assistance.
- ◆ Promotes your facility as eco-friendly.

How to Use this Guidebook

This guidebook is intended to be used as a reference manual. Refer to selected sections as needed for best management practice ideas and some pointers on legal requirements for various marina activities and facility management.

This guidebook is divided into the following sections:

- ◆ Boater Education
- ◆ Facility Management
- ◆ Hauling and Storing Boats
- ◆ Fueling
- ◆ Mechanical Activities
- ◆ Painting and Fiberglass Repair
- ◆ Emergency Planning

Each section first contains an explanation of the potential environmental impacts, then a basic outline of some of the environmental legal requirements, a description of best management practices, and lastly a list of other relevant sections in the guidebook.

The legal requirements described in this guidebook are only to help outline some of the major environmental laws and regulations that pertain to marinas and are not comprehensive. While the outlines can be used as guidance, compliance with laws and regulations can only be determined by the appropriate agency.

The best management practices in this guidebook may be used individually or in combination to reduce environmental impacts and to reduce the risk of illegal discharges of pollutants into the water.

The checklist used to determine South Carolina Clean Marina certification status references the sections and best management practices contained in this guidebook.

The appendices summarize some of the environmental federal and state laws and regulations that apply to marinas and boatyards. The appendices also include sample contract language and a list of contacts for more information.

How to Become a Certified South Carolina Clean Marina/Boatyard

A marina, boatyard, or yacht club must meet all the environmental legal and regulatory standards required by the state and federal government, and then employ a percentage of BMPs described in this document to become certified as a South Carolina Clean Marina. The criteria for certification are outlined in the checklist “South Carolina Clean Marina Award Checklist”, which is included in the front flap of this guidebook.

To become a certified South Carolina Clean Marina, use the “South Carolina Clean Marina Award Checklist” and this *South Carolina Clean Marina Guidebook* as references to assess your facility. If you meet the requirements for certification, contact the South Carolina Clean Marina Program at the S.C. Marine Association (SCMA) at (843) 889-9067 or info@scmarine.org to schedule a confirmation visit. Representatives with the South Carolina Clean Marina Program will meet with you to verify the items checked on the “South Carolina Clean Marina Award Checklist.” The Clean Marina Program consists of representatives with the SCMA, SCDNR, SCDHEC-OCRM, Clemson Extension, Palmetto Pride and the marina industry.

If you do not yet meet the minimum percentage of criteria on the checklist, you can still join the program with a Clean Marina Pledge. By signing the “South Carolina Clean Marina Pledge,” located in the front flap of this guidebook, you commit to becoming certified within one year. Clean Marina staff and specialists are available to help answer questions as you work toward Clean Marina certification.

Once certified, you must confirm annually in writing that you continue to meet the award standards described on the “South Carolina Clean Marina Award Checklist.” Every five years, or if there is a change in facility ownership, the Clean Marina coordinator will contact you to set up a meeting at a mutually convenient time to reaffirm your Clean Marina status.

List of Acronyms

ACOE	Army Corps of Engineers
APA	South Carolina Administrative Procedures Act
AST	Aboveground Storage Tank
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CVA	Clean Vessel Act
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendments of 1990
DHEC	South Carolina Department of Health & Environmental Control
DHEC-OCRM	SCDHEC Office of Ocean and Coastal Resource Mgmt.
DNR	Department of Natural Resources
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
EQC	SCDHEC Environmental Quality Control
ESA	Endangered Species Act
FC	Federal Consistency
HAP	Hazardous Air Pollutant
MRRP	Monofilament Recovery and Recycling Program
MPPRCA	Marine Plastic Pollution Research and Control Act
MSD	Marine Sanitation Device
MSDS	Material Safety Data Sheet
ND	No Discharge
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NWP	Nation Wide Permit
ODC	Ozone Depleting Chemical
OSHA	Occupational Safety and Health Administration
RCRA	Resource Conservation and Recovery Act
SCMA	South Carolina Marine Association
SCNW	South Carolina Navigable Waters
SPCC	Spill Prevention, Control, and Countermeasure
USC	United States Code
USCG	United States Coast Guard
UST	Underground Storage Tank
VOC	Volatile Organic Compound
TMDL	Total Maximum Daily Load

General Guidance: In or Out of the Water?

These lists can be used as a general guideline for whether a vessel should be taken out of the water or not for vessel repair and maintenance activities. Please see the sections in this guidebook for the regulations and best management practices for individual activities and substances.

May be conducted on board a vessel while it is in the water:

- ◆ Routine engine tune-ups, oil changes, and other minor servicing and repair.
- ◆ Routine care and cleaning of rigging and fittings, interior surfaces, and “bright work,” providing these activities do not produce a wastewater.
- ◆ Painting/varnishing interior surfaces and bright work.
- ◆ Routine sanitary pump-outs and maintenance of sanitary wastewater facilities.
- ◆ Bilge pump repair.
- ◆ Removal and replacement of an engine, when all discharges or spills of engine fluids are contained.
- ◆ Similar activities where an accidental spill can be contained on deck or within the vessel.

Should be conducted with the vessel out of the water:

(And within an area designed for that purpose, if the likelihood exists that pollutants may be released into the environment.)

- ◆ Repairs requiring the disassembly of the outboard or lower drive units.
- ◆ Bilge repairs requiring opening or penetrating the hull.
- ◆ Scraping, sandblasting, or painting the hull exterior or drive units.
- ◆ Interior or on-deck painting or similar activity involving aerosol application with a risk of over-spray or drip beyond the confines of the vessel.
- ◆ Hull exterior cleaning with agents other than non-chlorinated fresh water or natural seawater. Wastewater from such cleaning should be collected and treated, or discharged into a community sewerage system (permission may be required). Discharge of wash water into waters of the state is prohibited.
- ◆ Any other activities involving the potential risk of an unconfined discharge of oil, chemical, nutrients, or other contaminants to waters of the state.

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