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Introduction

Marinas, yacht clubs, and boatyards provide critical services to the boating public—maintaining, mooring, fueling, storing, and launching vessels of all kinds. While modern facilities and efficient service are essential, clean water is a key attribute of successful boating-based businesses, drawing boaters to the coast and keeping them coming back year after year. The *Massachusetts Clean Marina Guide* is designed as a reference for owners and operators of marine boating facilities, collectively referred to throughout this document as “marinas.” It provides information on cost-effective strategies and practices aimed at reducing marina and boating impacts on the coastal environment.

This chapter is an introduction to the Clean Marina concept, as well as an overview of how to use the Guide. It discusses the importance of protecting the environment, explains how and why the Guide was developed, introduces regulatory requirements, explains how different groups can use this information, and presents the purpose and structure of the document.

1.1 The Case for Clean Marinas

When marina operators adopt environmental practices and standards into their daily operations and pass this ethic on to the boating public, their facilities protect coastal resources and thereby become Clean Marinas. Along with serving the needs of their boating customers, Clean Marina staff members understand the potential environmental impacts of boating and willingly take responsibility to reduce these impacts so people can use surrounding waters for other recreational activities, such as swimming, fishing, and shellfishing.

A variety of routine activities can cause pollution. Boating, driving the car, fertilizing the lawn, even walking the family dog can leave behind contaminants that are washed into rivers, streams, lakes, and oceans when it rains. Nonpoint source pollution is the technical term for this “indirect” runoff contamination. The combined impacts of these countless small sources add up to significant pollution problems. In fact, with the tremendous advances in reducing industrial discharges, improving sewage treatment, and reducing other “point” sources of pollution, nonpoint source pollution is now the number one pollution problem facing coastal waters.

Marinas, like most other businesses, can generate significant amounts of nonpoint source pollution through a variety of activities, including hull repair, engine maintenance, and fueling. For example, paints, solvents, oil and gasoline, and other hazardous materials generated through boat operation and maintenance are toxic to humans and marine life. In addition, sewage released by boaters contains bacteria

Please Note

Throughout this document, the term “marinas” is used to refer collectively to all facilities and individuals engaged in boat keeping, storage, maintenance, and repair and includes boatyards, yacht clubs, town docks and ramps, other marine businesses, and do-it-yourselfers.

that can make people sick and contaminate shellfish resources. Finally, trash, which can easily be blown off docks and boats and into the water, is unsightly and can be harmful to marine animals that become entangled or swallow these materials. Because of the close proximity of marinas to the shore, the chance that these contaminants will reach the water is increased.

Adopting Clean Marina strategies and practices results in both environmental and economic benefits. On the environmental side, reducing pollution improves water quality around the marina, enhances marine habitats, and protects fish, shellfish, and other marine life. Many economic opportunities are also available. For example, boatyards using dustless vacuum sanders have found cost savings by virtually eliminating cleanup time to collect dust from the ground and neighboring boats. Use of oil absorption pads in boat bilges keeps oil drips from going overboard, thus avoiding the expense of cleanup and fines. Selling “green” products at the marina store can also generate an important source of income. Most importantly, a Clean Marina attracts and keeps customers, which is clearly good for business.

1.2 The Guide and the Marina Assistance Program

During the last eight years, federal and state agencies have worked together to develop strategies to reduce nonpoint source pollution from various land uses and activities, including marinas. The Commonwealth of Massachusetts adopted these strategies in *The Massachusetts Coastal Nonpoint Pollution Control Plan*. Rather than create new laws, this plan is built on existing laws and regulations and focuses on providing education and technical assistance. The Commonwealth’s Marina Assistance Program is a key component in this effort, providing information and technical assistance to marina owners and operators on how to reduce nonpoint source pollution impacts.

The Massachusetts Office of Coastal Zone Management (CZM) is taking the lead on the Marina Assistance Program with support from the Office of Technical Assistance (OTA) and other agencies within the Executive Office of Environmental Affairs (EOEA).

The Marina Assistance Program has three major components:

1. The *Massachusetts Clean Marina Guide*.
2. Workshops designed to help marina owners and operators understand and implement pollution reduction practices.
3. On-going technical assistance.

The *Massachusetts Clean Marina Guide* forms the basis of the Marina Assistance Program, serving as a reference manual of pollution prevention strategies for marina owners and operators. The Guide was developed with the oversight and assistance of a Marina Working Group, which includes numerous representatives from the marina industry (see below). This group was first convened to provide input during the

Consider This

According to the U.S. Environmental Protection Agency (EPA), the single greatest pollution type contributing to the overall degradation of coastal and inland water quality and aquatic habitat is nonpoint source pollution. It’s the main reason that approximately 40 percent of U.S. rivers, lakes, and estuaries are not clean enough to meet basic uses, such as fishing or swimming.

See EPA’s Office of Water website for more on nonpoint source pollution: www.epa.gov/owow/nps/whatis.html.

For More Info

The Massachusetts Office of Coastal Zone Management (CZM) is the state agency responsible for developing and implementing coastal policy to balance resource use with resource protection along the Bay State's shoreline. For more information, visit CZM's website at www.state.ma.us/czm/ or call (617) 626-1200.

Massachusetts Office of Technical Assistance (OTA) is a non-regulatory branch of the Executive Office of Environmental Affairs (EOEA) that helps manufacturers and industrial facilities, municipalities, schools, hospitals, households, and others reduce or eliminate their use of toxics and the generation of hazardous byproducts. See www.state.ma.us/ota/ for more information or call (617) 626-1060.

development of pollution control strategies in *The Massachusetts Coastal Nonpoint Pollution Control Plan*. Working Group members have continued to assist CZM, contributing valuable information, insight, and recommendations to this Guide.

CZM will hold workshops on Clean Marina management in the spring of 2001 to present the Guide to marina owners and operators, as well as other interested individuals. In addition, both CZM and OTA will provide technical assistance through the Marina Assistance Program. Specifically, CZM and OTA will be available to answer questions about regulations that apply to marinas, provide environmental audits to identify pollution control options, and assist with the development of a marina pollution control plan.

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Tim Walter, Martin Walter Company

Nancy Wrenn, Massachusetts Department of Environmental Protection (DEP)

1.3 Marina Regulations

Although Massachusetts Marina Assistance Program does not create any new regulations, ensuring that your marina complies with existing laws is essential to reducing environmental impacts and avoiding fines and other enforcement actions. This Guide discusses federal and state laws and regulations that apply to marinas, but does not cover local bylaws and ordinances. If you are unsure whether your city or town has local bylaws regarding marina activities, contact your harbormaster, natural resource department, or conservation commission.

Current state and federal laws regulate specific marina activities, such as hull maintenance and pressure washing, fueling, and engine maintenance either through design mandates or discharge restrictions for waste liquids. A number of laws govern the handling and storage of hazardous materials, such as oil, paint, and solvents. Other laws are triggered by a variety of construction activities that range from building a shed to installing new docks and floats. These laws are listed in Chapter 6, which include sources for more information (phone numbers, website addresses, and regulatory citations). Feel free to call CZM for information and assistance.

1.4 Who Should Use the Guide

The primary audience for the *Massachusetts Clean Marina Guide* includes owners and operators of marinas, yacht clubs, and boatyards. Other users may include municipal officials (harbormasters, natural resource officers, etc.), boaters, and do-it-yourselfers (people who maintain and store their own boats). Here is a summary of how the Guide may apply to each of these groups.

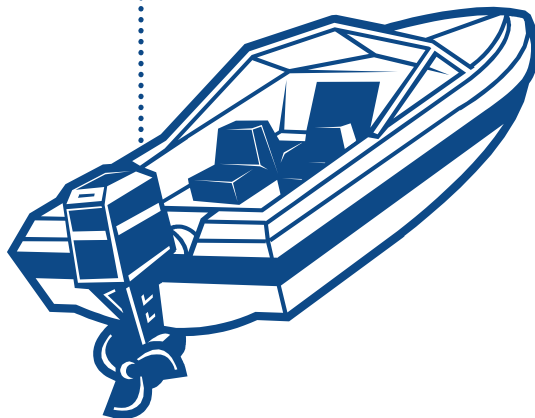
- ▶ **Marinas** — Many of the strategies discussed in this guide, including solid waste management and stormwater management, apply to all marinas. Because each marina performs different activities and has different facilities and local environmental conditions, the suite of management strategies selected will vary from one facility to the next.
- ▶ **Yacht Clubs** — While yacht clubs typically provide fewer services than marinas, they can be very effective in promoting boat maintenance practices for do-it-yourselfers, providing education to boaters, and setting up facilities for proper waste disposal and recycling.
- ▶ **Boatyards** — Because of the variety of chemicals that they use to repair and maintain boats (including paints, varnishes, epoxies, solvents, and oil), boatyards have the potential to generate significant pollution. At a minimum, all boatyards should review the status of their National Pollutant Discharge Elimination System (NPDES)

Multi-Sector General Permit (MSGP) with the U.S. Environmental Protection Agency and ensure that they are in compliance. The NPDES Program and its requirements are discussed in Chapter 6. Other management strategies will also apply depending on the services provided by each boatyard.

► **Municipalities** — Municipal marinas, landings, and boat ramps provide the public with a variety of services and facilities that can impact the marine environment. Harbormasters play an important role in overseeing the activities at municipal facilities, and in observing boater conduct on the water. This Guide will help harbormasters and other municipal personnel promote sound environmental practices. Municipal natural resource and conservation commission personnel should also review the Guide to become knowledgeable about marina management practices that protect the environment.

► **Boaters** — The Boat Operation section in Chapter 4 addresses actions by boaters that can harm the environment and the Boater Fact Sheets supplied at the end of the Guide provide a variety of solutions. Marinas, harbormaster, and others can use this information to establish boat operation procedures, as well as to educate the boating public.

► **Do-It-Yourselfers** — Although do-it-yourselfers are not the prime audience for this document, many of the management practices for hull scraping, engine maintenance, boat cleaning, and other boat maintenance activities should be used by this group. If you have do-it-yourselfers working at your facility, communicate this information to them through fact sheets, signs, and other educational strategies. If they show a lot of interest, suggest they call CZM at (617) 626-1212 for their own copy of this Guide.



1.5 Guide Purpose and Organization

The primary goal of the *Massachusetts Clean Marina Guide* is to help marina operators select appropriate pollution prevention strategies, called Best Management Practices or BMPs.

BMPs

Best Management Practices (or BMPs) help solve the environmental pollution problems that result from marina activities, such as boat cleaning, fueling, and waste disposal. BMPs use one or more basic methods to control this pollution, such as preventing accidental spills or leaks, capturing pollutants as they are produced, containing the spread of spills or debris, reducing the use of a potentially harmful material, and filtering or trapping out pollutants. They may include structural changes to a marina, acquisition and use of environmentally-preferable products and equipment, and educational efforts aimed at helping boaters understand how to prevent pollution. Additionally, you may develop your own BMPs to address particular problems based on the specific conditions at your marina. Note that it is less costly to prevent pollution from occurring than to clean it up later. Consider pollution prevention BMPs when prioritizing BMP implementation.

The Guide is organized as follows:

Chapter 2 provides background on the potential environmental impact of marina operations.

Chapter 3 discusses overall strategies and approaches to organize, run, and finance a Clean Marina operation.

Chapter 4 provides Best Management Practices to reduce pollution for different marina activities, along with checklists to help you identify the most appropriate BMPs for your facility.

Chapter 5 focuses on expanding or building marinas, giving details on how to meet current regulations and design a Clean Marina from the beginning.

Chapter 6 summarizes the fundamental environmental regulatory programs that apply to marinas.

Chapter 7 pulls all the other information together to develop a marina environmental plan to prioritize, finance, and schedule environmental improvements.



For More Info

For good examples of marinas that have adopted BMPs and how they have benefited, order the free U.S. Environmental Protection Agency report *Clean Marinas — Clear Value, Environmental and Business Success Stories* by calling (513) 891-6561 and requesting a copy of publication EPA 841-R-96-003. Or read and download the report from the EPA web site: www.epa.gov/owow/nps/marinas/index.html.