

The New Jersey Clean Marina Program GUIDEBOOK



**Prepared by:
The Coastal Management Office
New Jersey Department of Environmental Protection
2005**

**In association with:
The New Jersey Marine Sciences Consortium
New Jersey Sea Grant College Program**

Contact Information:

New Jersey Marine Sciences Consortium New Jersey Sea Grant Program

Michael J. Danko
New Jersey Sea Grant Extension Program
Building 22
Fort Hancock, NJ 07732
Phone: 732-872-1300 ext. 29
Fax: 732-291-4483
Email: mdanko@njmsc.org
www.njmsc.org

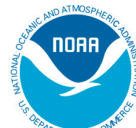
New Jersey Coastal Management Program

Tali Engoltz
New Jersey Department of Environmental Protection
Coastal Management Office
Office of Policy, Planning, and Science
401 E. State St 7th Fl. W
P.O. Box 418
Trenton, NJ 08625
Tel: 609-633-2201
Fax: 609-292-4608
Email: tali.engoltz@dep.state.nj.us
<http://www.nj.gov/dep/cmp/>

This manual is an educational tool for marina operators and boaters. It is not a complete reference to all relevant state, federal, or local laws and regulations. The official regulations are found in the New Jersey Administrative Code (N.J.A.C.). Should there be any discrepancies between this document and the official version, the official version will govern.

Relying solely on the information in this book will not protect you legally. The contributing agencies, organizations, and individuals do not assume any liability for the accuracy or completeness of the information in this publication. Inclusion in this Guidebook is not an endorsement by the Department of Environmental Protection or the State of New Jersey of any product or company listed.

Financial assistance has been provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration through the New Jersey Coastal Management Office CZM Grant Award #NA170Z2343.



Foreword

The Coastal Zone Act Reauthorization Amendments (CZARA) of 1990 require coastal states to develop Coastal Nonpoint Source Programs to address polluted runoff within the coastal zone. Nonpoint source pollution is a contamination of our waterways, ground water and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated from these activities are washed into storm drains that flow into our waterways and ocean.

By their very nature, marinas, boat yards, and yacht clubs are on the frontline as potential sources of nonpoint source pollution. Unreflective or careless activities at these facilities can contribute to the degradation of our waterways. Marina operation is a complex business that involves diverse activities, many of which can contribute to pollution of the environment. Marina related sources of pollution include stormwater runoff from boatyards, drips from fuel docks, discharges from marine heads, and disposal of fish waste by recreational anglers.

Rather than address boating and marina related risk through additional regulation, New Jersey is implementing a Clean Marina Program, a statewide, voluntary, incentive-based initiative. We call on all marina, boatyard, and yacht club operators to embrace the challenge and join the Clean Marina Program to protect our clean water and fresh air.

Acknowledgments

This Clean Marina Guidebook is the result of the efforts of many individuals, groups, and organizations. Foremost, we gratefully acknowledge the contribution of the Maryland Department of Natural Resources Clean Marina Initiative. The Maryland Clean Marina Guidebook has served as the model upon which the guidebooks of many other states, including New Jersey, are based.

We would like to thank representatives from the following NJDEP offices who reviewed the Guidebook for regulatory accuracy: Air Compliance and Enforcement, Air Quality Permitting, Emergency Response, Hazardous Waste Compliance and Enforcement, Nonpoint Pollution Control, Pesticide Compliance, Pollution Prevention and Right to Know, Recycling and Planning, Release Prevention, Solid Waste Compliance and Enforcement, Underground Storage Tanks, and Water Compliance and Enforcement.

The following organizations deserve a special thanks for their hard work and dedication to the New Jersey Clean Marina Pilot Project: Barnegat Bay National Estuary Program, Marine Trades Association of New Jersey, Manasquan River Watershed Association, Jacques Cousteau National Estuarine Research Reserve, New Jersey Department of Transportation Office of Maritime Resources, and the New Jersey Marine Sciences Consortium.

In addition, we would like to thank the following marinas for their assistance and commitment to the New Jersey Clean Marina Program: Atlantic Highlands Municipal Harbor, Baywood Marina, Leamings Marina, Main One Marina, Ocean Gate Yacht Basin, and Silver Cloud Harbor Marina.

Cover photo courtesy of: Melissa Danko, Executive Director, Marine Trades Association of New Jersey

Table of Contents

Introduction	1
How to use the Guidebook	3
Vessel Maintenance and Repair	5
Environmental Concerns	5
Pertinent Laws and Regulations	5
Best Management Practices to Control Pollution from Vessel Maintenance and Repair Activities	6
▶ Designate Work Areas	6
▶ Contain Sanding Dust	7
▶ Contain Abrasive Blasting Debris	7
▶ Minimize Pressure Washing Impacts	8
▶ Minimize Paint Impact	10
▶ Minimize Painting Operations Impacts	10
▶ Reduce Overspray	10
▶ Handle Solvents Carefully	11
▶ Minimize Environmental Impacts from Engine Repair and Maintenance	11
▶ Winterize Safely	12
▶ Conduct In-Water Maintenance Wisely	13
▶ Educate Boaters	13
Petroleum Control	17
Environmental Concerns	17
Pertinent Laws and Regulations	17
Best Management Practices for Preventing Spills at the Source	19
▶ Protect Petroleum Storage Tanks	19
▶ Avoid Waves and Wakes	20
▶ Maintain Fuel Transfer Equipment	21
▶ Install Environmental Pump Controls	21
▶ Supervise Fueling: Environmental Recommendations	21
▶ Supervise Fueling: Safety Recommendations	22
▶ Turn Pressure Down	23
▶ Advocate Use of Oil Absorbent Materials	23
▶ Pump Contaminated Bilge Water	24
▶ Offer Spill-Proof Oil Changes	24

▶ Minimize Spills and Leaks from Machinery	24
▶ Educate Boaters	25
Best Management Practices for Emergency Planning	25
▶ Prepare a Spill Prevention, Control, and Countermeasure Plan	25
▶ Community Right to Know	26
▶ Develop Emergency Response Plans	26
▶ Make Plans Accessible	27
▶ Train Employees	27
▶ Share Your Emergency Response Plans	28
▶ Maintain Oil Spills Response Equipment	28
▶ Store Oil Spill Response Equipment Smartly	28
▶ Be Prepared for a Fire	29
▶ Maintain Material Safety Data Sheets	30

Sewage Handling **33**

Environmental Concerns **33**

Pertinent Laws and Regulations **33**

Best Management Practices to Control Sewage **35**

▶ Install a Pumpout System	35
▶ Prohibit Discharge from Type I and Type II at the Slip or Mooring	37
▶ Provide Onshore Restrooms	37
▶ Provide Accommodations for Emptying Portable Toilets	37
▶ Safeguard and Maintain Septic Systems to Protect Water Quality and Public Health	37
▶ Provide Live Aboard Facilities	38
▶ Offer MSD Inspections	39
▶ Encourage Compliance	39
▶ Educate Boaters	40

Waste Containment and Disposal **43**

Environmental Concern **43**

Pertinent Laws and Regulations **43**

Best Management Practices to Properly Contain and Dispose of Waste **44**

▶ Hazardous Waste	44
▶ Reduce Waste	47
▶ Control Fish Waste Disposal	47
▶ Manage Trash	48
▶ Recycle Whenever Possible	48
▶ Recycle Solid Waste	49
▶ Recycle Liquid Waste (N.J.A.C. 7:26A)	49

▶ Minimize Hazardous Product Use	51
▶ Store Solvents and Hazardous Materials with Care	52
▶ Follow Recommended Disposal Methods	53
▶ Track Pollution Incidents	56
▶ Educate Boaters	57

Stormwater Management 63

Environmental Concerns 63

Pertinent Laws and Regulations 63

Best Management Practices to Control Stormwater

Runoff 64

▶ Practice Low Impact Development	64
▶ Cultivate Vegetated Areas	65
▶ Minimize Impervious Areas	65
▶ Employ Preventative Source Controls	66
▶ Use Structural Controls as Necessary	66
▶ Control Sediment from Construction Sites	67
▶ Stencil Storm Drains	67
▶ Basic Industrial Stormwater Permit	67
▶ Stormwater Pollution Prevention Plan Preparation	68

Marina Management 71

Staff Training 71

▶ Stormwater Pollution Prevention Plan	71
▶ Emergency Response Plans	71
▶ Be Watchful	72
▶ Approach Polluters	72
▶ Attend Relevant Workshops and Training	73
▶ Maintain Training Records	73

Inform Patrons and Independent Contractors 73

▶ Incorporate Best Management Practices into Contracts	73
▶ Post Best Management Practices Signs	74
▶ Distribute Literature to Patrons	76
▶ Host a Workshop	76
▶ Make Use of Informal Communication Mechanisms	77
▶ Recognize Boaters	77

Public Relations 77

▶ Publicize Your Good Deeds	77
-----------------------------	----

Business Practices 78

▶ Offer Environmental Audits for Boaters	78
▶ Avoid Environmental Surcharges	78
▶ Be Diligent	78

Marina Maintenance and Modification	79
Environmental Concerns	79
Pertinent Laws and Regulations	79
Best Management Practices for Marina Facilities and Structures	81
▶ Enhance Water Circulation	81
▶ Use Environmentally Neutral Materials	81
▶ Limit Shading of Water	82
▶ Minimize Dredging Needs	82
▶ Minimize Dredging Impacts	82
▶ Employ Nonstructural Shore Erosion Control Measures	83
▶ Conserve Water	83
▶ Maintain Structures Using Clean Marina Practices	84
▶ Provide Public Access to the Waterfront	84
Best Management Practices for Protecting Sensitive Areas	84
▶ Minimize Impervious Areas	84
▶ Use Upland and Inland Areas	84
▶ Expand Upward	85
▶ Conserve Sensitive Land	85
▶ Practice Water-wise Landscaping	85
▶ Adopt Integrated Pest Management Practices	86
Best Management Practices for Creating Habitat Areas	87
▶ Maintain and/or Develop Vegetated Areas	87
▶ Participate in Oyster Restoration Programs	88
Siting Considerations for New and Expanding Marinas	89
Environmental Concerns	89
Pertinent Laws and Regulations	89
Site Selection Guidelines	89
▶ Redevelop Existing Sites	89
▶ Characterize Project Site	89
▶ Identify Rare and Endangered Species	90
▶ Avoid Submerged Aquatic Vegetation	90
▶ Minimize Wetlands Disturbance	91
▶ Avoid Shellfish Habitat	91
▶ Avoid Critical Migration, Nesting, and Spawning Periods	91
▶ Avoid Colonial Waterfowl Nesting and Staging Areas	92
▶ Avoid Geographic and Hydrographic Impediments	92
▶ Consider Bottom Configuration	92
▶ Follow Natural Channels	93

Laws and Regulations	95
Select Federal Agencies and Their Jurisdictions	95
Select State Agencies and Their Jurisdictions	96
Select Federal Laws of Interest to Marinas	96
▶ Clean Air Act Amendments, 1990	96
▶ Clean Vessel Act	96
▶ Coastal Zone Act Reauthorization Amendment of 1990	97
▶ Federal Water Pollution Control Act	97
▶ Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) or Superfund Amendments and Reauthorization Act of 1986 (SARA Title III)	98
▶ Marine Plastic Pollution Research and Control Act	99
▶ Oil Pollution Act of 1990	100
▶ Organotin Antifoulant Paint Control Act of 1988	100
▶ Refuse Act of 1899	100
▶ Resource Conservation and Recovery Act	100
Select State Laws of Interest to Marinas	102
▶ Marine Sanitation Devices	102
▶ Pumpout Systems	103
▶ No Discharge Areas	103
▶ Pollution Discharge Prohibited	103
▶ The Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.)	103
▶ The Waterfront Development Law	104
▶ Wetland Act of 1970	104
▶ Tidelands Act	105
▶ Freshwater Wetlands Protection Act	105
▶ Underground Storage Tanks	107
Environmental Permits and Licenses	107
▶ Basic Industrial Stormwater General Permit (NJ0088315)	107
▶ Sediment Control and Stormwater Management	108
▶ Accidental Discharge of Oil or Hazardous Substances	108
▶ Air Pollution Control Act (N.J.A.C. 7:27 Subchapter 8)	109
Bibliography	
Appendices	
I. Information Sources	A-1
II. Permitting Information and Assistance	A-3
III. Sample Contract Language	A-5
IV. Conservation Landscaping	A-7

Special Features

Tables

Table 1	Recommended Disposal Methods	53
----------------	-------------------------------------	-----------

Boxes

Box 1	Bottom Paints	9
Box 2	Oil Absorbent Material	23
Box 3	Fuel Spill	29
Box 4	How Do You Know if a Substance is Hazardous?	51
Box 5	Contents of a Stormwater Pollution Prevention Plan	69

Clean Boating Tip Sheets

Sheet 1	Vessel Cleaning and Maintenance	15
Sheet 2	Petroleum Control	31
Sheet 3	Vessel Sewage	41
Sheet 4	Waste Containment and Disposal	59

Acronyms

BMP	Best Management Practice
CAFRA	Coastal Area Facilities Review Act
CFR	Code of Federal Regulations
CZARA	Coastal Zone Act Reauthorization Amendments of 1990
EPA	Environmental Protection Agency
MPPRCA	Marine Plastic Pollution Research and Control Act
MSD	Marine Sanitation Device
NDA	No Discharge Area
NJAC	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NOAA	National Oceanographic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
PWC	Personal Water Craft
QAC	Quarternary Ammonium Compounds
RCRA	Resource Conservation and Recovery Act
RFA	Request For Authorization
SAV	Submerged Aquatic Vegetation
TCLP	Toxicity Characteristic Leaching Procedure
UL	Underwriters Laboratories, Inc.
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank

Introduction

Welcome. As a member of New Jersey's boating community, comprised of approximately 540 boatyards and marinas and 205,000 registered vessels, you play an important and leading role in keeping New Jersey's beautiful water clean. The goal of the New Jersey Clean Marina Program is to offer information, guidance, and technical assistance to marina operators, local government, and recreational boaters to facilitate the implementation of the most effective practices available to protect New Jersey's water resources, enhance fish and wildlife habitat, and promote environmentally sound boating practices. This Guidebook is an easy-to-use reference that will assist you in the day-to-day environmentally responsible operation of your marina, boatyard, or yacht club. In addition, it provides guidance for the long-range planning and operation of your business. By employing the best management practices (BMPs) and activities offered in this booklet, you and other marina and boatyard operators will contribute to the protection of the resources that draw boaters and fishers to New Jersey's waters. Additionally, improving the quality of New Jersey's waterways is a good business practice for your marina or boatyard.

The Clean Marina Program is designed to assist marina and boatyard operators to protect the resources upon which their livelihood depends: clean water and fresh air. These natural assets are essential features of the boating industry. After all, most boaters are drawn to the water and nature's glory. Ironically, activities such as boating and fishing associated with the enjoyment of natural wonders can have unintended consequences that lead to the degradation of resources.

The maintenance, operation, and storage of recreational vessels can contribute to the pollution of adjacent waters and impairment of local air quality. Contaminants include dust from hull maintenance operations, solvents from engine repair shops, petroleum from careless fueling practices, sewage discharges from boats, and heavy metals from antifouling paints. These pollutants may be deposited directly into waterways or they may be carried in by stormwater runoff. Marina design and location may also contribute to environmental degradation by disturbing sensitive habitats.

This is not to say that marinas and boaters are the only contributors to environmental degradation. Quite the contrary is true. Water quality is impacted by fertilizers and pesticides, by industrial discharges, and by our choices of home cleaning products. It is affected by sediment washed from cleared land and by stormwater runoff that collects oil and heavy metals deposited by our cars. Consequently, we all must do what we can to limit the detrimental environmental consequences of our actions. If we each act in an environmentally responsible manner the cumulative result will be a cleaner, healthier environment.

By implementing the best management practices contained in this Guidebook, you demonstrate your commitment to environmental stewardship and you will have a beneficial influence on the boating experience. Your marina or boatyard will be a safer, healthier place to work. You may save money by reducing your costs for materials and for waste cleanup and disposal. You may increase your income by renting out equipment such as vacuum sanders and by selling recyclable materials such as aluminum cans and office paper. Similarly, cleaner, more efficient equipment will increase your staff's productivity. Your liability associated with waste handling may also be reduced. And, your facility will be more attractive to those who care about the health of our water, land, and air. Take pride in your efforts to protect the natural resources upon which we all depend.

The Clean Marina Program promotes clean water and fresh air by providing technical advice and educational material to marina operators and boaters. It seeks to encourage informed decision-making that reduces boating-related pollution. The Clean Marina Guidebook is written for managers of full service marinas with boatyards.

However, many of the recommendations equally apply to marinas with limited services, independent boatyards, and marine contractors. The Guidebook provides advice on the following topics:

- vessel maintenance and repair
- petroleum control
- sewage handling
- waste containment and disposal
- stormwater management
- marina management
- marina maintenance and modification
- siting considerations for new or expanding marinas
- laws and regulations

Marinas that employ a satisfactory number of the best management practices provided in this Guidebook will be distinguished as New Jersey Clean Marinas. A marina that achieves Clean Marina status will be certified in recognition of its environmentally responsible efforts. Certified marinas may display the Clean Marina Program logo on their letterhead and advertising, fly a Clean Marina burgee from their property, and receive recognition by the Clean Marina Program in publications, on the official New Jersey Clean Marina Website (www.njcleanmarinas.org), and at public events. Now is the time to take a leadership role in protecting and enhancing the quality of New Jersey's natural resources. We urge you to join the Program. The rewards in terms of both environmental protection and economic enhancement will be well worth the effort.

The Clean Marina Pledge

Included with this Guidebook is a Clean Marina Pledge. By signing the pledge you commit to protect water quality and coastal resources by preventing and reducing nonpoint sources of pollution. Proudly display the original Pledge Card so that your customers can see your dedication to protecting the environment. Then send a copy to the New Jersey Sea Grant Office (see Appendix I).

How to Use this Guidebook.

The Clean Marina Guidebook is intended for use both as a reference document and as a means for you to assess and score the achievement of best management practices (BMPs) at your facility. Read the chapters and sections that refer to the services provided at your marina. Review the list of activities, practices, and permits required by law as well as those that are recommended for additional environmental protection and conservation of air and water quality and habitat. You will be eligible for recognition as a Clean Marina only if your marina complies with all regulatory requirements. Implementation of the recommended best management practices is voluntary but by doing so you demonstrate your commitment to resource conservation and environmental stewardship. It is this extra effort for which you will be honored by the Clean Marina designation.

As you read through the Guidebook you will find that statements are preceded by a legal scale (⚖️) or a checkmark (✓). The scale identifies legal requirements and a checkmark indicates recommended activities for fulfilling a BMP. You do not have to institute every recommended BMP or activity and some may not apply at your facility. Often there are one or more recommended methods by which you can fulfill or implement each BMP. Each method has been assigned a value of either 1 or 5 depending on “level of difficulty” and overall environmental benefit. As you review each BMP determine which of the methods you have employed or are in place at your facility and award yourself the corresponding number of points. If a law, regulation, BMP, or one of the means by which to fulfill it do not apply at your facility simply mark it as N/A (not applicable). Total the number of points you have earned for each BMP as well as the total number of points for each chapter and write it in the spaces provided in the Guidebook.

You may also keep track of your cumulative points as you complete each chapter.

A Self-assessment Checklist has been created that corresponds to the chapters, sections, and BMPs in this Guidebook. This checklist functions as a summary document allowing you to easily score your facility to determine whether it qualifies to be certified as a New Jersey Clean Marina. The Checklist has a simple set of directions that explain how to calculate your final score.

Four Clean Boating Tip Sheets are included in the Guidebook. They address vessel cleaning and maintenance, petroleum control, vessel sewage, and waste containment and disposal. Photocopy these tip sheets and distribute them to boaters. There is space on each sheet to include your marina’s name and logo.

Throughout the book you will find references to additional sources of information. Contact information and brief descriptions of services offered by each authority are listed in Appendix I. Subsequent appendices contain information about permitting assistance, sample contract language, and conservation landscaping.

The Clean Marina Committee

The Coastal Management Office within the New Jersey Department of Environmental Protection (NJDEP) administers the planning and enhancement aspects of New Jersey's federally approved Coastal Management Program. As a result, the Coastal Management Office leads the implementation of the New Jersey Clean Marina Program in coordination with a Clean Marina Committee. This Committee includes representatives from government agencies, industry, non-profit groups, academic institutions, who have knowledge and expertise in boating and marina operation and management. The Coastal Management Office and the Committee have worked together to plan, design, and implement the Clean Marina Program.

Committee members represent:

- Coastal Management Office, NJDEP
- New Jersey Marine Sciences Consortium, New Jersey Sea Grant College Program
- New Jersey Marine Trades Association
- Jacques Cousteau National Estuarine Research Reserve
- US Coast Guard Auxiliary
- Rutgers Extension Program
- Division of Parks & Forestry, NJDEP
- Partnership for Delaware Estuary, DELEP
- Barnegat Bay National Estuary Program
- Manasquan River Watershed Association

Additional information about the Committee members can be found in Appendix I.

The New Jersey Clean Marina Webpage

Current information regarding the New Jersey Clean Marina Program can be found on the official webpage at www.njcleanmarina.org. Copies of program documents including this Guidebook, the Pledge Card, the Self-assessment Checklist, the informational brochure, and others can be downloaded. Announcements, newsletters, photographs, answers to frequently asked questions, and more will also be available on the site.