



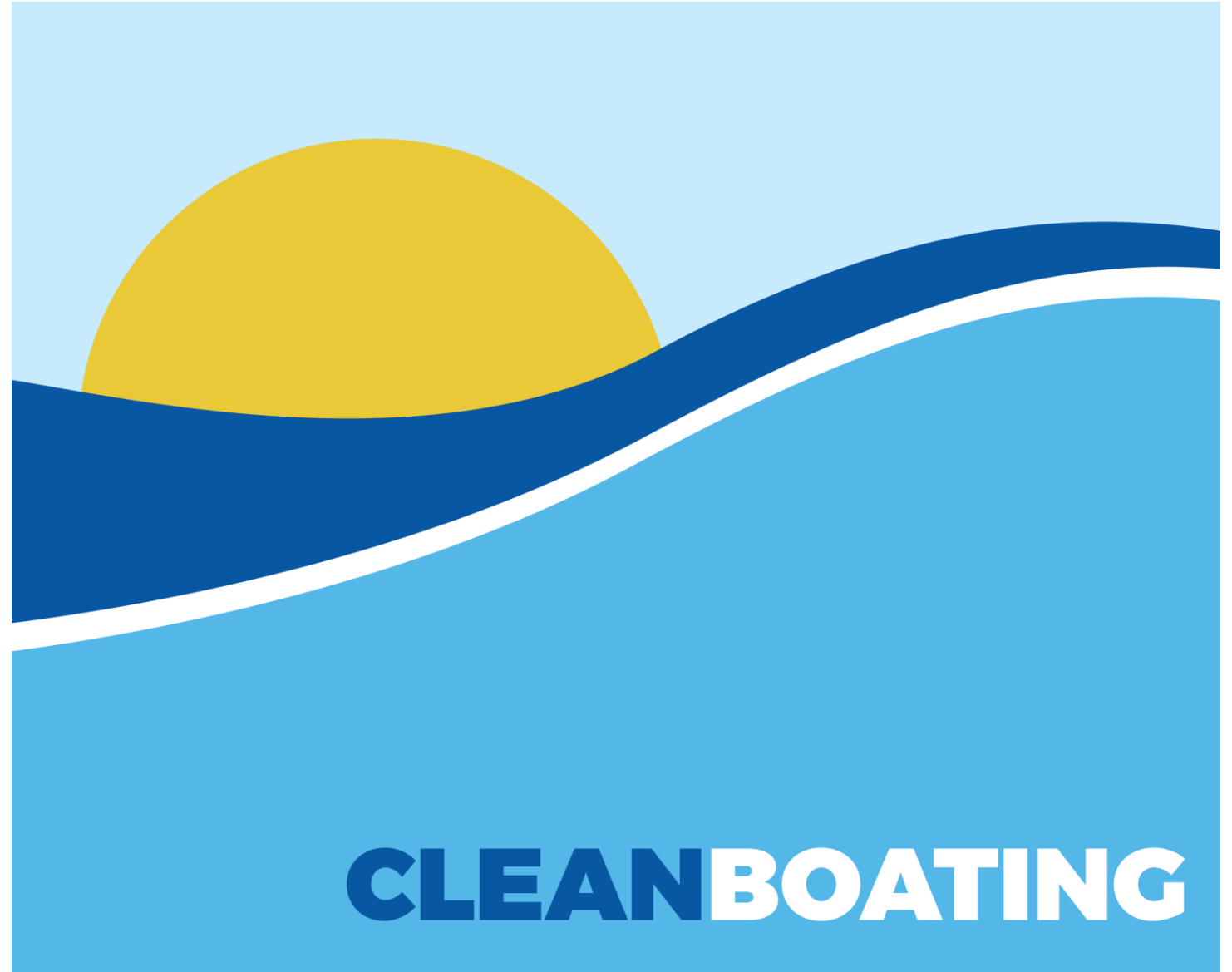
# **Florida Department of Environmental Protection Office of Resilience and Coastal Protection Clean Boating Programs**

**Brenda Leonard  
Program Administrator**



# **Florida Clean Boating Programs**

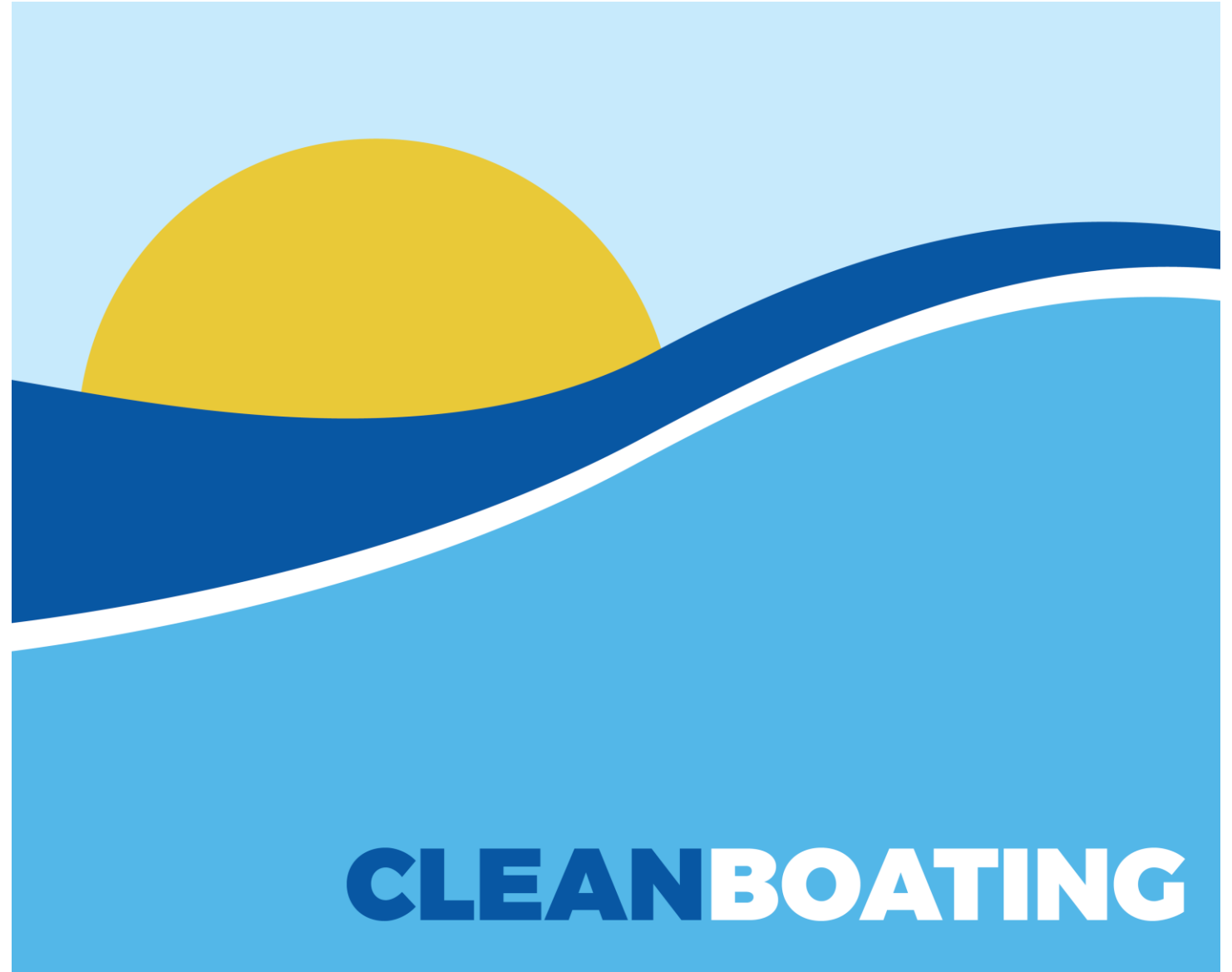
**The Clean Boating Programs are voluntary, partnership-driven initiatives for marinas, boatyards, and boaters to exhibit a proactive approach to environmental stewardship**





# Florida Clean Boating Programs

- Clean Marina
- Clean Boatyard
- Clean Marine Retailer
- Clean Boater
- Clean Vessel Act pumpouts
- Clean Boating Partnership





# Clean Boating Partnerships

MARINE  
INDUSTRIES  
ASSOCIATION  
OF FLORIDA, INC.



Association of  
Marina Industries





# Florida Clean Boating Programs

- **Non-regulatory and voluntary**
- **Florida Clean Marina Program is true partnership between industry and government**
- **Designed to benefit marine and fresh water bodies**
- **Ties together facilities, boaters and the environment**

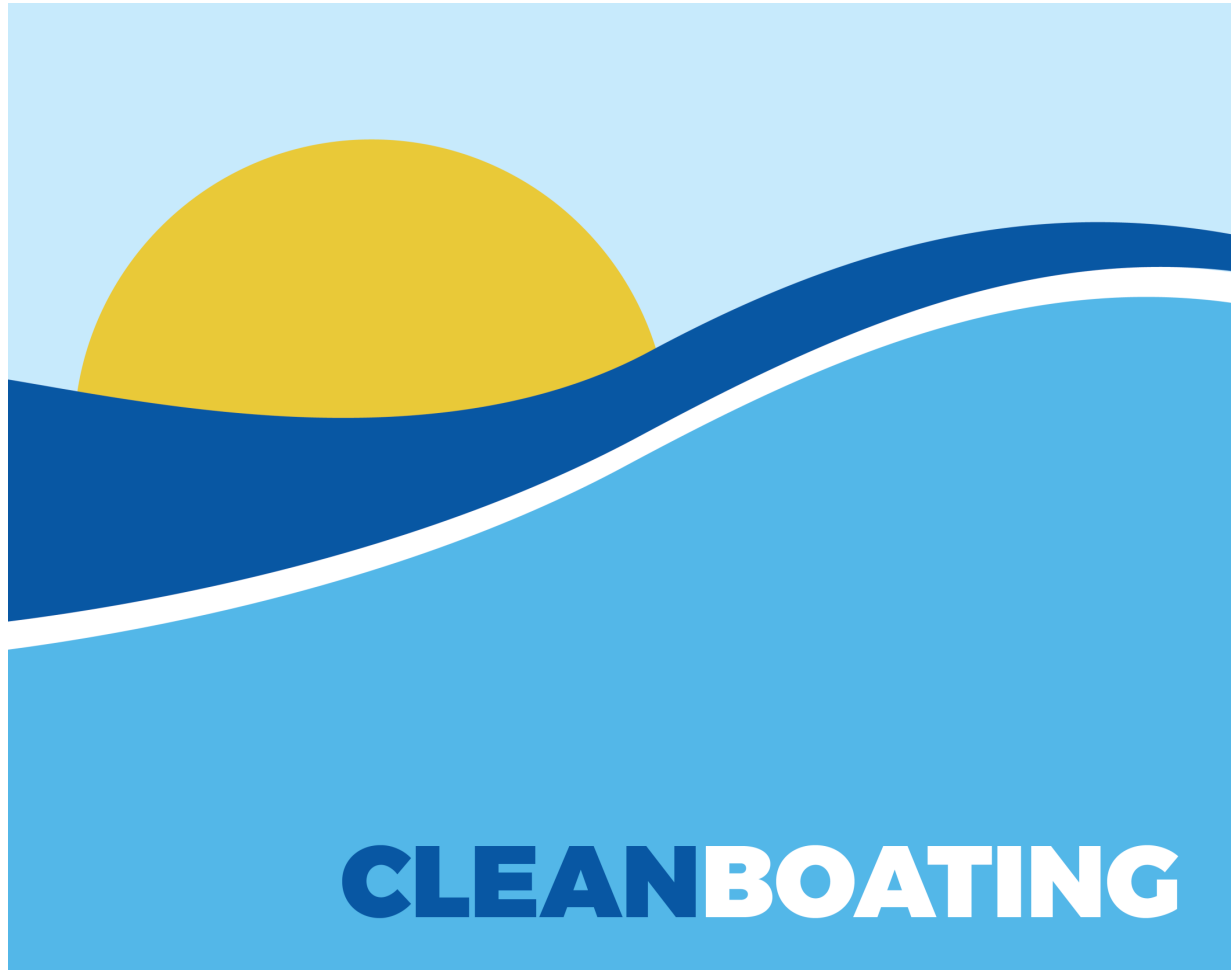
✓ **Prevention**

✓ **Preparedness**

✓ **Clean Water**



# Clean Boating Program Benefits

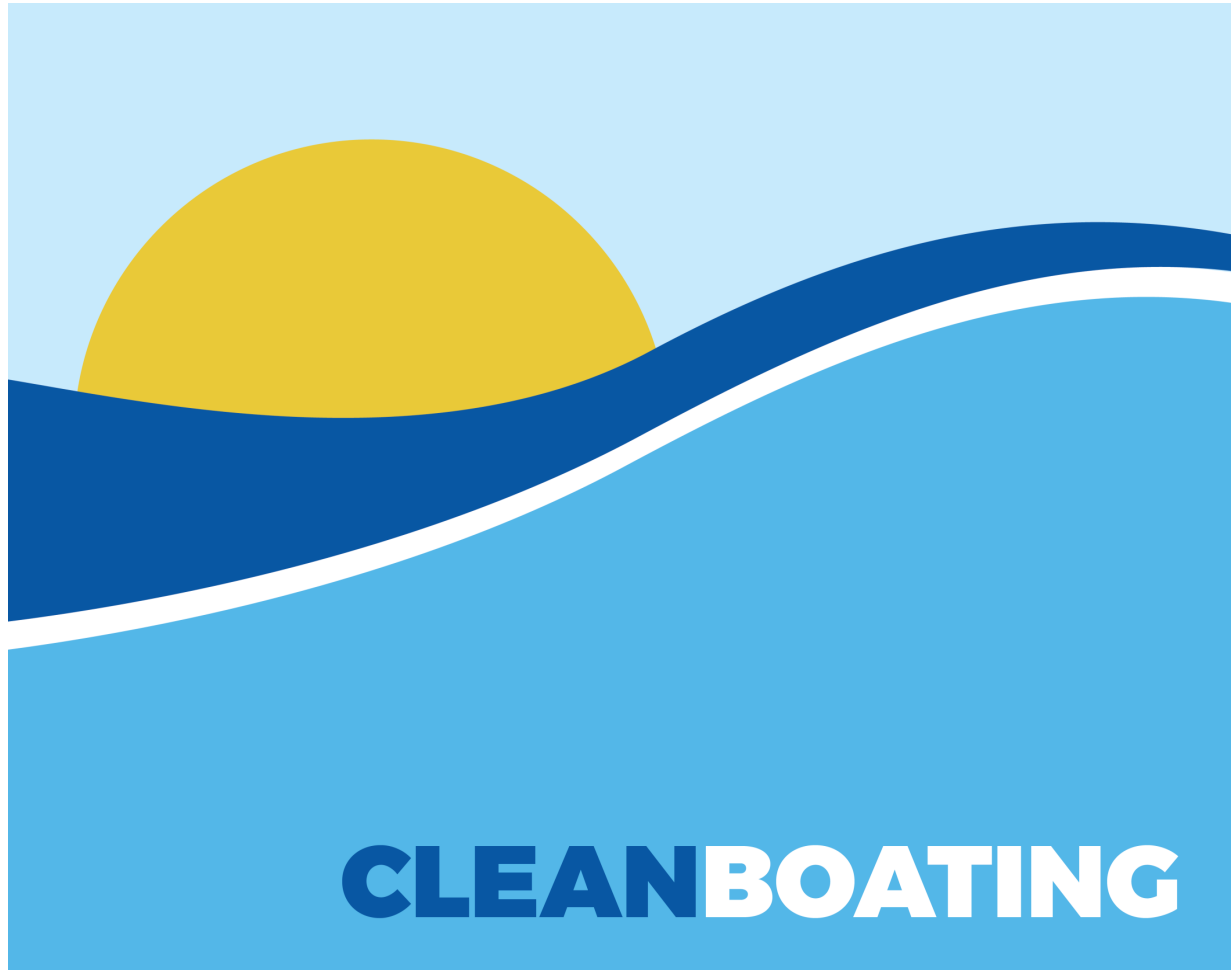


- **Technical assistance**
- **Compliance assistance**
- **Grant funding pumpouts**
- **Possible insurance discounts**
- **10% discount on Submerged Land Lease**
- **Listed on DEP website**
- **Partnerships**

**Attract and keep customers!**



# Compliance Assistance



- **Air regulations**
- **Stormwater regulations**
- **Wastewater regulations**
- **Hazardous waste regulations**
- **Submerged land regulations**
- **Fuel storage tank regulations**



**“Resilience is the capacity of human and natural/physical systems to adapt to and recover from change.”**

**— Gulf of Mexico Alliance’s  
Coastal Community Resiliency Team**







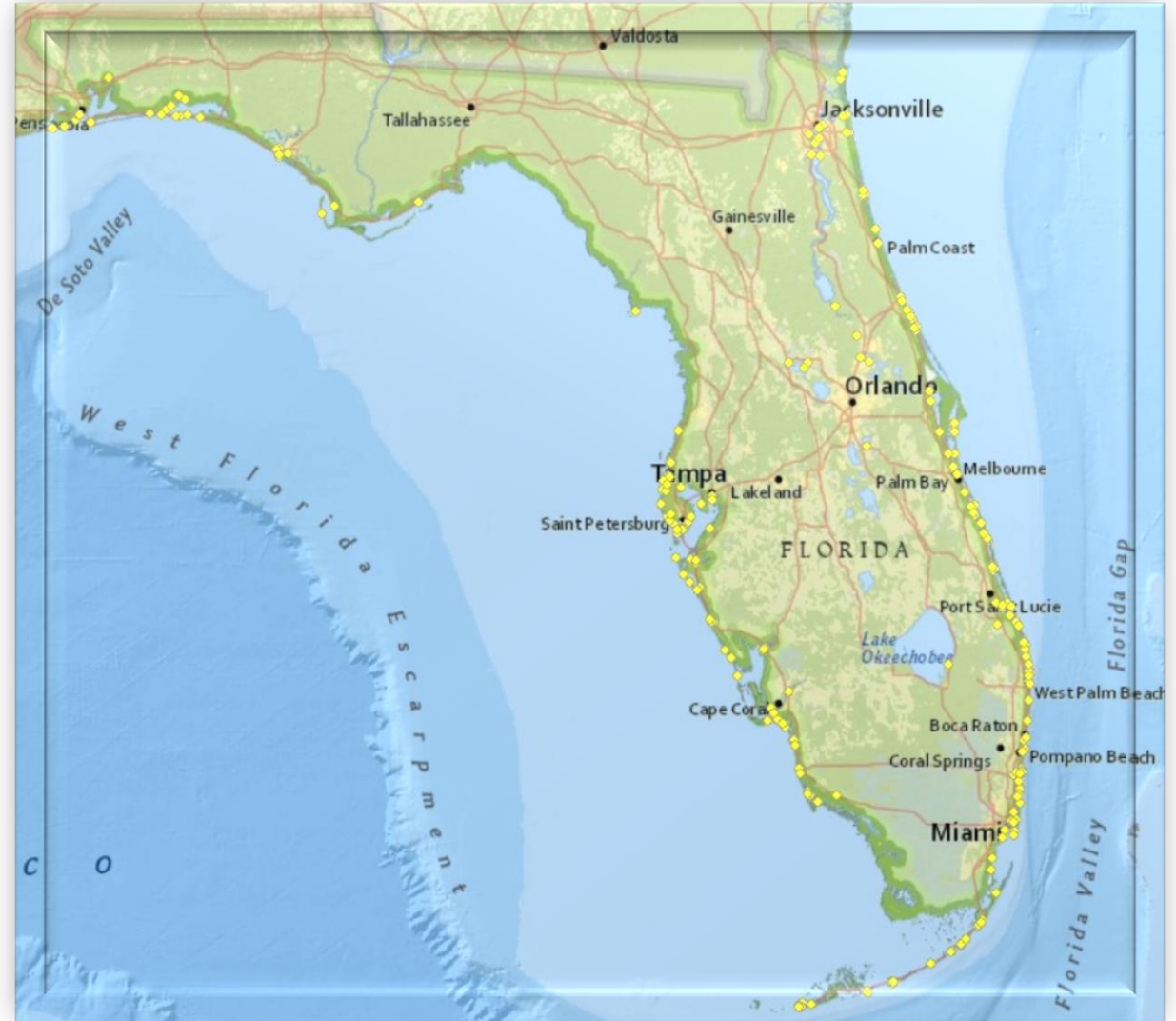
# Clean & Resilient Marina Criteria

**Environmental Management**

**Environmental Quality**

**Environmental Services**

**Resilient Components**





# Environmental Management

- Compliance with all required regulations
- Compliance with submerged land lease
- Implements Best Management Practices
- Available staff for boaters
- Adequate waste management
- Posts environmental policies





# Environmental Quality

- **Clean with no signs of oil, sewage or litter**
- **Discharge of raw sewage prohibited**
- **Wastes are well-managed and spills are prevented**





# Environmental Services

- **Clean restrooms**
- **Access to drinking water**
- **Docks and grounds well-maintained**
- **Trained facility personnel**
- **Provide boater information**





# Resiliency at Marinas

- **Floating docks**
- **Concrete docks**
- **Removable docks**
- **Reinforced dry stack**
- **Natural shorelines**
- **Removable equipment**
- **Underground fuel tanks**
- **Underground utilities**
- **Trained dedicated staff**





# Clean and Resilient Resources

- Guidebook at a Glance
- Guidebook Volume I
- Guidebook Volume II
- Policy Guide

**AT A GLANCE**

**Clean & Resilient Marina Checklist**

**1.0 MARINA DESIGN & MAINTENANCE**

**1.1 CLEAN MARINA CHECKLIST QUESTIONS**

Yes | No | New Construction - Use environmentally neutral materials?  
 Yes | No | New Construction - Employ shore erosion control measures?  
 Yes | No | Maintain property using Clean Marina/Best Management Practices (BMPs)?  
 Yes | No | Practice water conservation?  
 Yes | No | Use upland and inland areas for storage & maintenance?  
 Yes | No | Have a vegetated area or conservation easement on your property?  
 Yes | No | Avoid lawn, lawn & garden chemicals to the greatest extent possible?  
 Yes | No | Practice waterwise landscaping?

**1.2 RESILIENT MARINA CHECKLIST QUESTIONS**

**Marina Siting**

Yes | No | Conduct soils stability, or geotechnical, testing before construction or expansion?  
 Yes | No | Determine maximum potential wind speeds at site?  
 Yes | No | Estimate potential wave height by determining distance wind travels over open water (or fetch)?  
 Yes | No | Determine potential heights of elevated tidal and storm surge?  
 Yes | No | Determine prevailing currents?  
 Yes | No | Location provides shelter from water impact and storm surge?  
 Yes | No | Harbor entrance channel is aligned to account for prevailing winds, waves, and currents?  
 Yes | No | Located in area requiring a minimum of excavating, filling, and dredging?  
 Yes | No | Improvements made to maximize circulation and minimize need for dredging?  
 Yes | No | Water-calming measures employed as appropriate?

**Waterside facilities**

Yes | No | Piers and docks extend into naturally deep waters?  
 Yes | No | Slips for deep draft boats located in naturally deep waters?  
 Yes | No | Dock system designed to allow for free exchange of water between harbor and surrounding water?  
 Yes | No | Launch ramps can accommodate high volume traffic in the event of an evacuation?  
 Yes | No | Fuel tanks are located on shore?  
 Yes | No | Channels are of adequate width to promote safe movement of boats?

For more information, visit [www.gulfofthemexicoalliance.org](http://www.gulfofthemexicoalliance.org)

**AT A GLANCE**

**Clean & Resilient Marina Checklist**

**2.0 MARINA MANAGEMENT**

**2.1 CLEAN MARINAS**

Yes | No | Train employees 2/year about the coast?  
 Yes | No | Train employees to use equipment & regularly review emergency response?  
 Yes | No | Train employees to search for equipment?  
 Yes | No | Have a predetermined procedure for maintenance record-keeping?  
 Yes | No | Incorporate best management practices into operations?  
 Yes | No | Distribute environmental education material to high-traffic and dock areas?  
 Yes | No | Encourage and recognize boaters who practice good environmental stewardship?

For more information, visit [www.gulfofthemexicoalliance.org](http://www.gulfofthemexicoalliance.org)

**CLEAN & RESILIENT MARINA GUIDEBOOK AT A GLANCE**

**GULF OF MEXICO ALLIANCE**

Mississippi  
Louisiana  
Alabama  
Florida  
Texas

Eco-Systems, Inc.

**CLEAN & RESILIENT MARINA GUIDELINES VOLUME I**

**GULF OF MEXICO ALLIANCE**

Mississippi  
Louisiana  
Alabama  
Florida  
Texas

Eco-Systems, Inc.

**CLEAN & RESILIENT MARINA GUIDEBOOK VOLUME II - APPENDICES**

**GULF OF MEXICO ALLIANCE**

Mississippi  
Louisiana  
Alabama  
Florida  
Texas

Eco-Systems, Inc.

**CLEAN & RESILIENT MARINA GUIDEBOOK POLICY & MODEL ORDINANCE GUIDE**  
Policy Guidance and Ordinance Language to Consider for Managing Clean and Resilient Marinas

**GULF OF MEXICO ALLIANCE**

Mississippi  
Louisiana  
Alabama  
Florida  
Texas

Eco-Systems, Inc.

**AT A GLANCE**

**Clean & Resilient Marina Checklist**

**3.0 EMERGENCY PLANNING**

**3.1 CLEAN MARINA CHECKLIST QUESTIONS**

Yes | No | Do you have a Spill Prevention Control and Countermeasure (SPCC) plan?  
 Yes | No | Have accessible, current, written emergency response plans for likely threats?  
 Yes | No | Have regular emergency training and drills for staff?  
 Yes | No | Store oil spill response equipment in a convenient, readily accessible location?  
 Yes | No | Maintain files of Material Safety Data Sheets as required by Occupational Safety and Health Administration (OSHA)?

**3.2 RESILIENT MARINA CHECKLIST QUESTIONS**

Yes | No | Have an active Emergency Preparedness Leadership Team?  
 Yes | No | Boat owners requirements defined in the case of an emergency?  
 Yes | No | Employee Instruction Program for emergency preparedness?  
 Yes | No | Evacuation procedures clearly communicated to staff including wet slip procedures, dry dock procedures, and staff evacuation?  
 Yes | No | Support boat owners to they develop their own emergency plans?  
 Yes | No | Prohibit signs detailing emergency preparedness requirements and procedures?  
 Yes | No | Require boaters to carry insurance?

**4.0 EVALUATION PROCEDURES**

**4.1 RESILIENT MARINA CHECKLIST QUESTIONS**

Yes | No | Have an active evacuation plan for hurricanes or other disasters?  
 Yes | No | Active plan for the conditions to trigger disaster?  
 Yes | No | Ability to mobilize large number of boats in a short time span?  
 Yes | No | Boaters are familiar with the marina's evacuation policies and procedures?  
 Yes | No | Boaters file a clear plan of their intentions in the event of a storm?  
 Yes | No | Have hurricane response team?  
 Yes | No | Boat owners & other volunteers?  
 Yes | No | Established wet slip evacuation procedure?  
 Yes | No | Established dry dock evacuation procedure?  
 Yes | No | For boats that do not evacuate, storm resistant tie-down procedures and responsibilities clearly defined?  
 Yes | No | Boat preparedness steps defined in boating agreement?

For more information, visit [www.gulfofthemexicoalliance.org](http://www.gulfofthemexicoalliance.org)



# Clean and Resilient Checklist

- **Marina Design and Siting**
- **Marina Management**
- **Emergency Planning**
- **Evacuation Procedures**
- **Petroleum Control**
- **Sewage Handling**
- **Outreach and Education**
- **Vessel Maintenance/Repair**
- **Stormwater Management**
- **Waste Containment/Disposal**





# Resilient Marina BMPs for Siting

- **Preconstruction soil-stability testing is conducted**
- **Determination of maximum wind speeds, currents and wave heights**
- **Location naturally provides shelter**
- **Water-calming measures are used**
- **Minimum amount of excavating, filling and dredging for construction and operation**



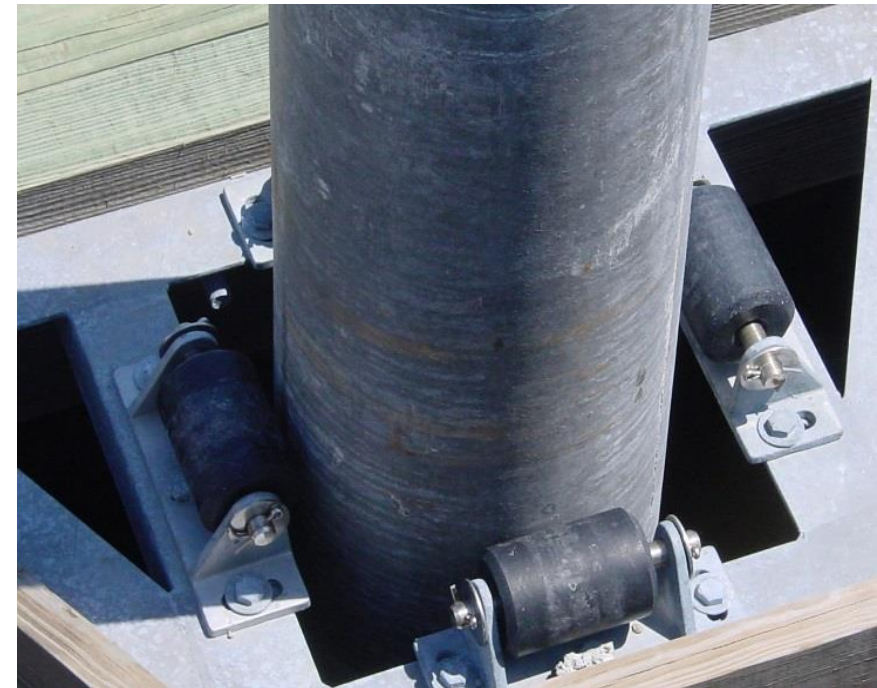
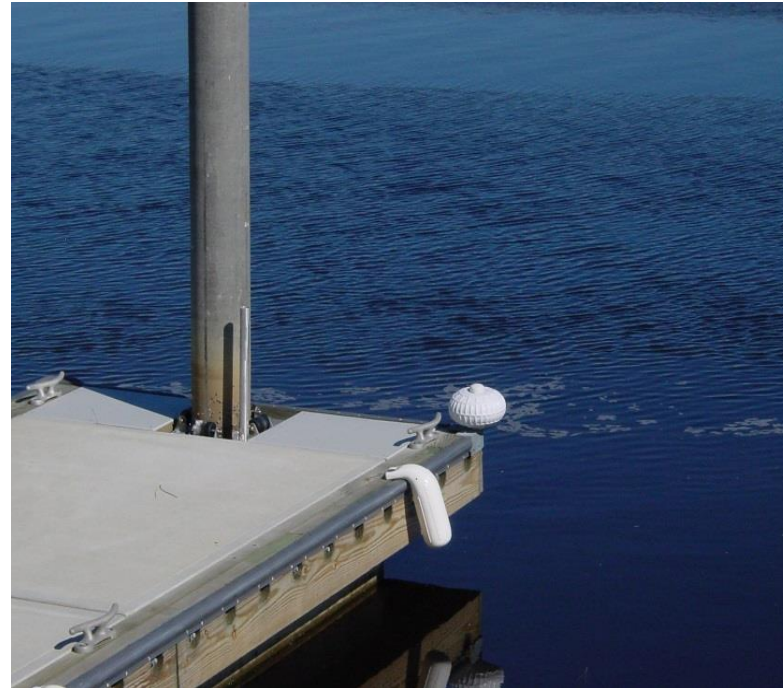




# Design and Siting

## Carrabelle Boat Club at Carrabelle, FL

- **Floating cement docks**





# Design and Siting

## Carrabelle Boat Club at Carrabelle, FL

- Marina is protected by soft shoreline





# Severe Weather Preparedness

## *Resilient Marina BMPs*

- **Develop a severe-weather preparedness plan.**
- **Remove portable containers of paint, fuels, oils, cleaners, MSDs, loose gear.**
- **Remove boats from water to inland**
- **Move boats out of slips into open or highly protected waters.**
- **Use mooring balls instead of anchors**





# Emergency Management

*It's not a matter of if, it's a matter of when...  
and planning will help determine your success.*

**Emergency response plans**

**Spill Prevention Control and Countermeasure (SPCC) Plan**

**Store oil spill and emergency equipment in a readily accessible location.**

**Conduct regular emergency training and drills for staff.**

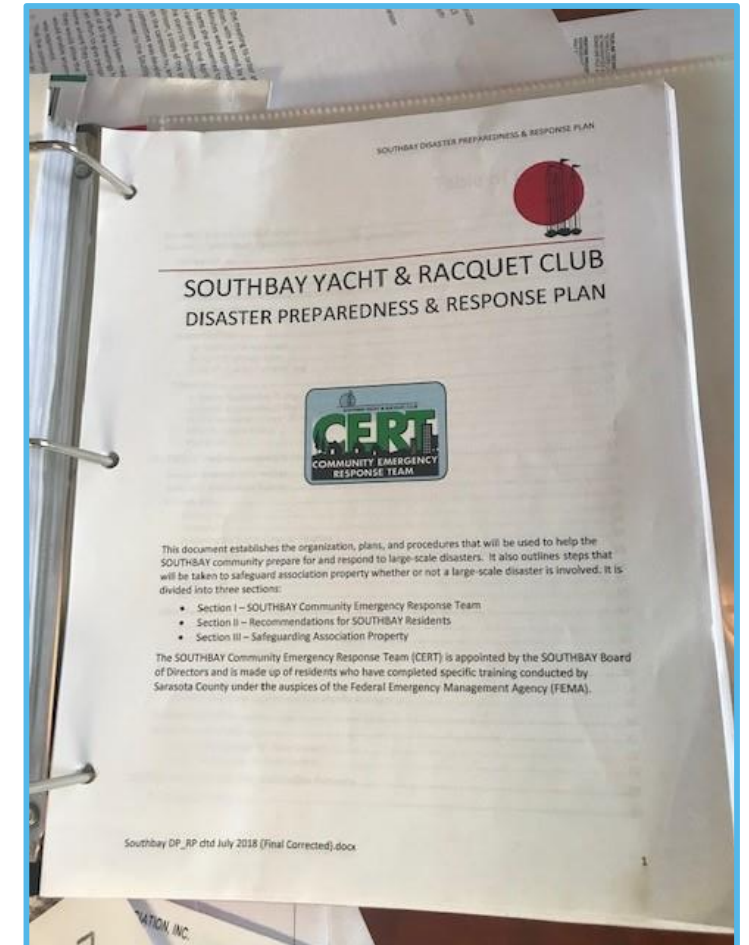




# Evacuation Procedures

## *Resilient Marina BMPs*

- **Active facility evacuation plan – wet slips and dry stack**
- **Regular emergency training and drills for staff are conducted**
- **Preparedness steps are defined in slip lease agreements**
- **Notification of storm resistant tie-down procedures and responsibilities**





# Resilient Marina BMPs for Boaters

- **Encourage patrons to develop personal emergency plans**
- **Emergency signage is posted throughout facility**
- **Boaters are required to have current insurance**
- **Evacuation procedures are clearly communicated to staff**



# Sewage Handling

## *Clean Marina BMPs*

- **Installation of pumpout system and/or pumpout vessel**
- **No dockside discharge**
- **Upland restrooms and laundry facilities are available**
- **Log use and maintenance of pumpout system**
- **Provide patron education on effluent impacts to waterway**
- **Sewage pumpout systems are regularly maintained**





# Marine Sanitation

- **Marine Sanitation Devices are designed to receive, retain, treat or discharge sewage**
- **IN NO DISCHARGE ZONES**
  - **Must have a Type III MSD and disable the Y Valve or any type of holding tank**
  - **This includes graywater (galley, bath, shower water)**







# No Discharge Zones

- **Designated by Federal Register Notice**
- **Raw or Treated Discharge Prohibited in No Discharge Zones**
- **Vessel must have a holding tank and use pumpout**
  - **Destin Harbor**
  - **City of Key West waters**
  - **State waters within the Florida Keys National Marine Sanctuary**

## **NOTICE**

**THIS WATERWAY IS A  
NO DISCHARGE ZONE**



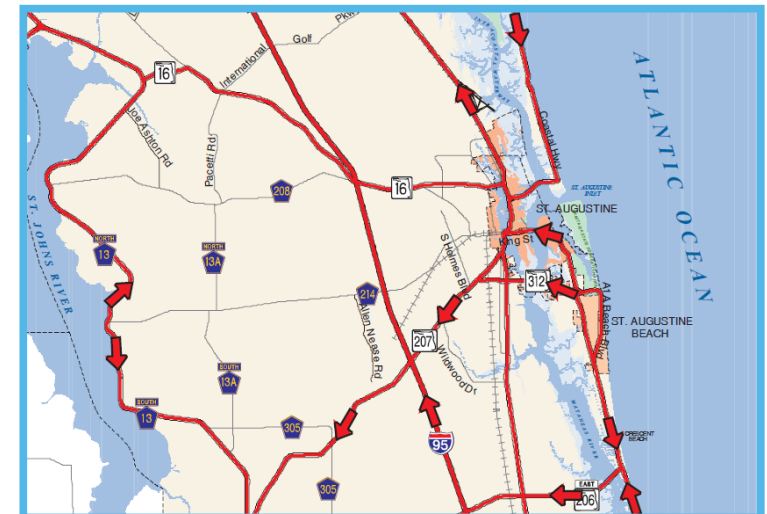
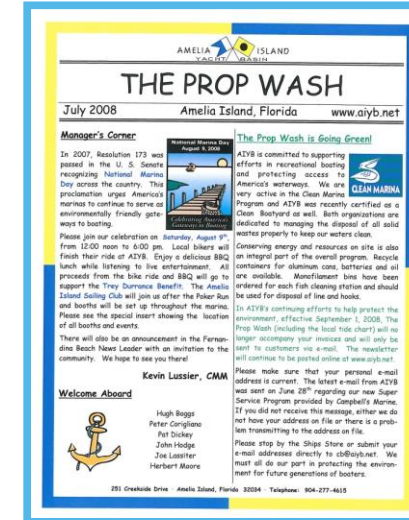
**THE DISCHARGE OF  
SEWAGE FROM ANY BOAT  
IS STRICTLY PROHIBITED**



# Outreach and Education

## Resilient Marina BMPs

- Post emergency information for boaters.
- Include emergency and evacuation policies in berthing agreements.
- Clearly mark evacuation and emergency routes.
- No-wake zones are clearly defined and included in agreements.





# Clean & Resilient Marina

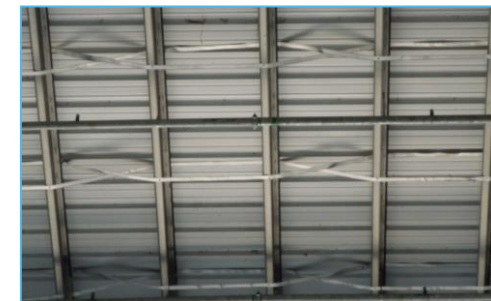
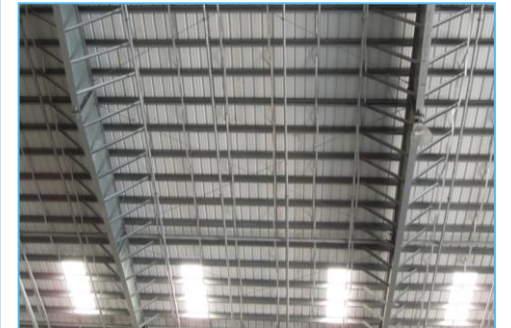


*Bluepoints Marina - Port Canaveral*



# Bluepoints Marina Cape Canaveral

- **Dry stack reinforced by over and under strapping**
- **All ties in together and is strapped to the foundation**
- **Dry stack is vented at bottom**





# Bluewater Bay Marina Complex



**Marina built into the environment**

**Shielded by natural barriers**



**Pumpout vessel services surrounding waters**



**Natural shoreline absorbs wave energy**



# Palm Harbor Marina



*Palm Harbor Marina, Pensacola, FL*



**70' piling being installed**

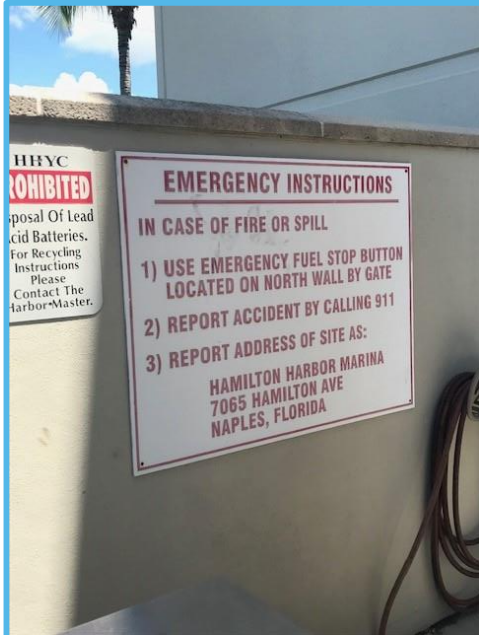


# Hamilton Harbor Yacht Club

**Dry stack is resilient to 150 mph winds.**

**Concrete walls separate each boat.**

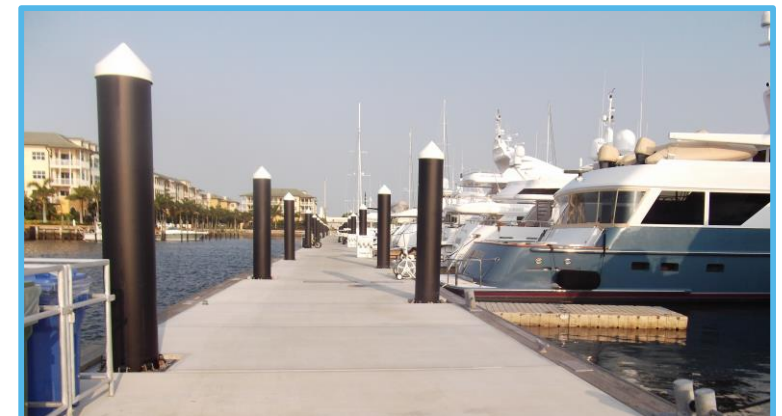
**Protects each boat bay from the spread of fire.**





# Florida's Resilient Marinas

- **Bluepoints Marina at Port Canaveral**
- **St Augustine Municipal Marina**
- **Palm Harbor Marina**
- **Fish Tale Marina**
- **City of Ft Myers Yacht Basin**
- **Carrabelle Boat Club**
- **NAS Key West Boca Chica**
- **NAS Pensacola Bayou Grande**
- **NAS Pensacola Sherman Cove**
- **Legacy Harbor Marina**
- **Lost Key Marina & Yacht Club**
- **Bens Lake Marina**
- **City of Leesburg Venetian Cove**
- **Bluewater Bay Marina Complex**
- **Port St Joe Marina**
- **Holiday Harbor Marina**
- **Esplanade Marina Association**
- **Legendary Marina Destin**
- **Harbor View Marine**
- **Clearwater Harbor Marina**
- **Pilot House Marina**
- **Rose Marina**
- **Prime Marina**

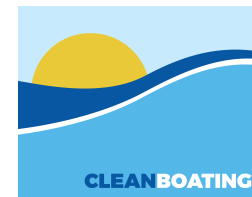






# Clean Boating Program Successes

- **313 Clean Marinas**
- **46 Clean Boatyards**
- **20 Clean Retailers**
- **20 Clean & Resilient Marinas**
- **575 Pumpout Projects**
- **30 million gallons sewage pumped**
- **1000's of Clean Boaters**





**Florida Clean Marina Program**  
[www.floridadep.gov/rcp/clean-marina](http://www.floridadep.gov/rcp/clean-marina)

**Clean and Resilient Marina**  
[www.floridadep.gov/rcp/clean-marina/content/clean-resilient-marina](http://www.floridadep.gov/rcp/clean-marina/content/clean-resilient-marina)

**Florida Clean Vessel Program**  
[www.floridadep.gov/rcp/cva](http://www.floridadep.gov/rcp/cva)

**CLEANBOATING**



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