

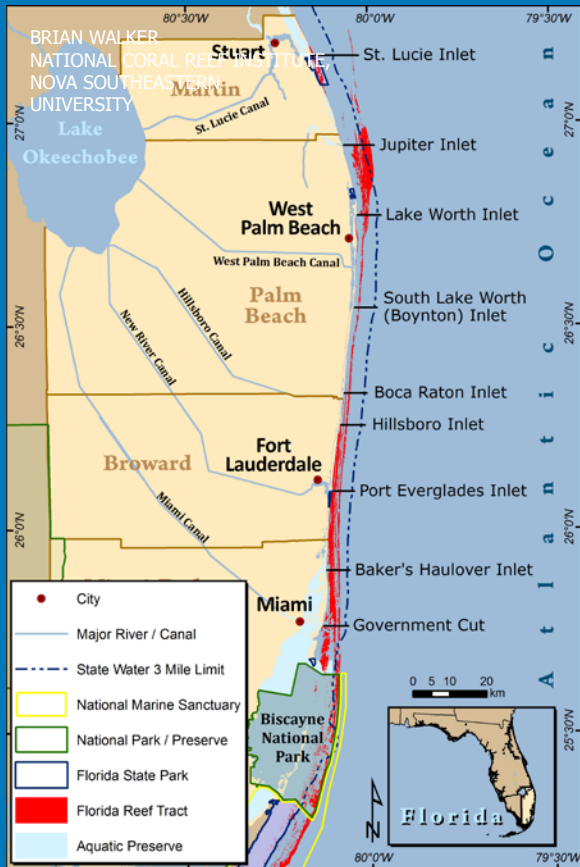
A Quick Guide to Southeast Florida's Coral Reefs

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Spring 2013

Prepared by the
Land-based Sources of Pollution
Technical Advisory Committee (TAC) of the
Southeast Florida Coral Reef Initiative (SEFCRI)



Southeast Florida's coral-rich communities are more valuable than the Spanish treasures that sank nearby. Like the lost treasures, these amazing reefs lie just a few hundred yards off the shores of Martin, Palm Beach, Broward and Miami-Dade Counties where more than one-third of Florida's 19 million residents live. Fishing, diving, and boating help attract millions of visitors to southeast Florida each year (30 million in 2008/2009). Reef-related expenditures generate \$5.7 billion annually in income and sales, and support more than 61,000 local jobs.

Such immense recreational activity, coupled with the pressures of coastal development, inland agriculture, and robust cruise and commercial shipping industries, threaten the very survival of our reefs. **With your help, reefs will be protected from local stresses and future generations will be able to enjoy their beauty and economic benefits.**

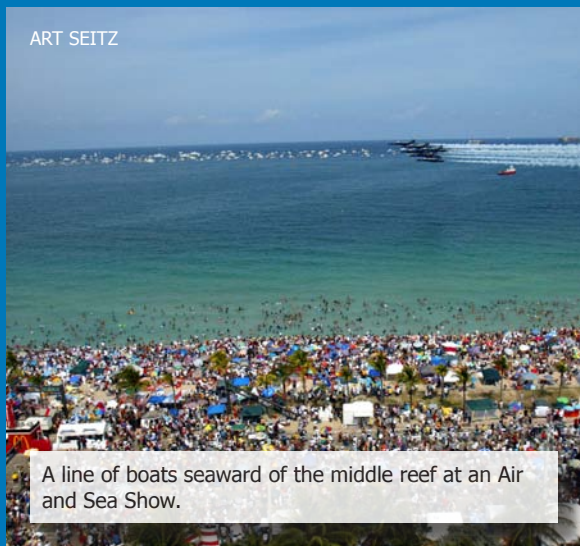
Coral reefs are highly diverse and productive, yet surprisingly fragile, ecosystems. They are built by living creatures that require clean, clear seawater to settle, mature and reproduce. Reefs provide safe havens for spectacular forms of marine life. Unfortunately, reefs are vulnerable to impacts on scales ranging from local and regional to global.

Global threats to reefs have increased along with expanding human populations and industrialization. Now, warming seawater temperatures and changing ocean chemistry from carbon dioxide emitted by the burning of fossil fuels and deforestation are also starting to imperil corals. These threats are serious, and we must take steps to control greenhouse gas emissions. In the near term, our best hope for sustaining coral reefs is to minimize as many local stressors as possible.

Many local activities harm southeast Florida's coral reefs, including dredging, beach nourishment, coastal construction, vessel groundings and injuries from pipelines, cables, anchors, chains and marine debris. Overfishing has disrupted food webs and has been implicated in the expansion of coral-suffocating algae. Our reefs, which occur at the northern extent of their natural range, are vulnerable to the effects of temperature extremes, as well as to the excess sediment, nutrients and numerous other contaminants that enter coastal waters via inlets, ocean outfalls, groundwater outflows, surface runoff and atmospheric deposition.

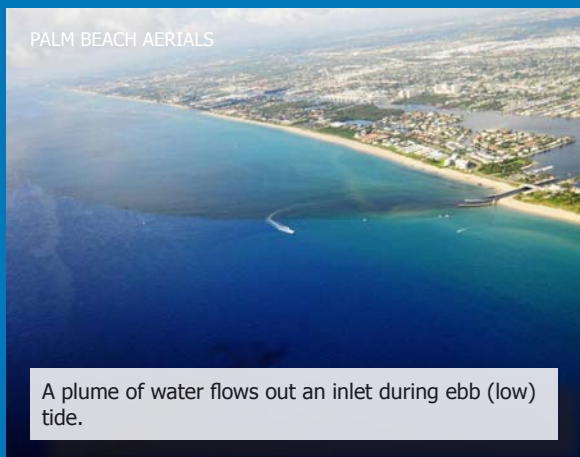
State legislation requires eventual closure of six southeast Florida ocean outfalls that discharge wastewater from sewage treatment plants, removing one of the pathways by which nutrients and other pollutants enter the ocean. However, this process could take more than 13 years for completion; this and other threats remain.

Our priceless coral reef treasures need more immediate actions to reduce destructive pollution!



ART SEITZ

A line of boats seaward of the middle reef at an Air and Sea Show.



PALM BEACH AERIALS

A plume of water flows out an inlet during ebb (low) tide.

Hope for the Future

Protect southeast Florida's coral reefs for our children's futures and for the economic well-being of the state.



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SEFCRI TAC Recommendations

Stop the flow of pollution from:

- Homes by replacing septic systems with advanced, household-scale or municipal wastewater treatment systems.
- Agriculture by controlling fertilizer use and disposal of animal wastes.
- Impervious roads, parking lots and driveways by substituting porous paving materials, adding swales and retaining nutrient-rich surface waters on site.
- Landfills by maintaining liners and leak detection devices, and by capturing emitted methane.
- Automobiles by carpooling more and expanding mass-transit systems.
- Boats by enforcing sewage no-discharge zones for all vessels in all state waters.
- Power plants by further developing renewable energy sources and energy conservation measures.

Encourage people of all ages to:

- Cherish our living coral reef treasures.
- Find solutions to help protect and restore our reefs.

Facilitate “best management” practices to:

- Minimize discharges of toxic chemicals, pharmaceuticals, pesticides and other contaminants from marinas, farmlands, residences, industries and businesses.
- Protect nearshore reefs during coastal projects.

Create and support:

- Implementation of numeric nutrient criteria for Florida’s estuarine and marine waters.
- Additional facilities for collection of hazardous wastes, recyclables, and wastes from boat holding tanks.
- Marine protected areas and sustainable fisheries management practices.

Restore:

- Mangrove forests, seagrass meadows and other vegetation along waterways and shorelines.
- Natural and clean water flows from Lake Okeechobee and the Everglades.

Invest in the future by:

- Implementing comprehensive coastal zoning and management plans.
- Enforcing laws prohibiting runoff and dumping of chemicals and trash.
- Supporting long-term status and trend studies of coral reefs with comprehensive monitoring and research.
- Curbing greenhouse gas emissions.



**Southeast
Florida
Coral Reef
Initiative**

Acting above to protect what's below.

This document was printed with support in part by a Coral Reef Management Grant from the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resources Management, and by the Florida Department of Environmental Protection’s Office of Coastal and Aquatic Managed Areas through its Coral Reef Conservation Program. The views, statements, findings, conclusions and recommendations expressed herein are those of the authors and do not necessarily reflect the views of the State of Florida, the Department of Commerce, NOAA, or any of their subagencies.