



FLORIDA'S COASTAL AND OCEAN FUTURE:
An Updated Blueprint for Economic and Environmental Leadership

FLORIDA COASTAL AND OCEAN COALITION
January 2012

ABOUT THE FLORIDA COASTAL AND OCEAN COALITION

The Florida Coastal and Ocean Coalition (Coalition) is a group of organizations working together to conserve, protect and restore Florida's coastal and marine environments. The Coalition emphasizes the need for an ecosystem-based approach to coastal and ocean management, and recognizes the important linkages between the health of Florida's economy, and the health of its beaches, dunes, coral reefs, mangroves, oyster reefs, sea grasses, salt marshes and other coastal natural resources. The Coalition calls on Florida's governor, state agencies, Cabinet, Legislature and Congressional delegation for action and leadership to achieve the goal of healthy ocean and coastal ecosystems.

The Coalition Steering Committee is made up of representatives of the following organizations: Conservancy of Southwest Florida, 1000 Friends of Florida, Gulf Restoration Network, Indian Riverkeeper, Natural Resources Defense Council, Reef Relief, Sea Turtle Conservancy, Surfrider Foundation and The Nature Conservancy.

By way of background, the Coalition has produced a number of policy papers, including an earlier blueprint report - *Florida's Coastal and Ocean Future: A Blueprint for Economic and Environmental Leadership (2006)* and follow up *Florida Coastal and Ocean Policy Report Card (2009)*, as well as *Preparing for a Sea Change – A Strategy to Cope with the Impacts of Global Warming on the State's Coastal and Marine Systems (2008)*. In addition, the Coalition hosted "The Florida Coastal and Ocean Conference" in 2010 that attracted policymakers, resource managers, agency leaders, academics and interested members of the public to consider ocean and coastal policy issues. This conference led to the report *Planning for Florida's Ocean and Coastal Future: Recommendations of the Florida Coastal and Ocean Coalition (2010)*. These reports and other information on the Coalition may be found on our website www.flcoastalandocean.org.

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ABOUT THE AUTHORIZING ORGANIZATIONS



The Conservancy of Southwest Florida was founded by a group of concerned citizens from Naples, Florida in 1964 and now serves Charlotte, Lee, Glades, Hendry and Collier counties. Its mission is to protect Southwest Florida's unique natural environment and quality of life now and forever. With the recent completion of its \$38.5 million Saving Southwest Florida capital campaign, it is currently poised to expand its wildlife rehabilitation, environmental education, scientific research and environmental advocacy programs for protecting Southwest Florida's exceptional natural resources. www.conservancy.org

ABOUT THE AUTHORIZING ORGANIZATIONS



Sea Turtle Conservancy, founded in 1959 by Dr. Archie Carr and based in Gainesville, Florida, is the oldest sea turtle conservation organization in the world. It is dedicated to the conservation of sea turtles through research, training, advocacy, education and protection of habitats. Learn about Sea Turtle Conservancy and sea turtles at www.conserveturtles.org



Natural Resources Defense Council (NRDC) is a national nonprofit environmental organization with more than 1.3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Chicago, southern California, San Francisco, and Beijing. Visit us at www.nrdc.org



Reef Relief® is a 25-year old, nonprofit membership organization dedicated to improving and protecting our coral reef ecosystem. We focus on rigorous science to educate the public and advocate policymakers to achieve Conservation, Protection, and Restoration of coral reefs. Learn more at www.reefrelief.org



The Surfrider Foundation is a nonprofit environmental organization dedicated to the protection and enjoyment of the world's oceans, waves and beaches for all people, through conservation, activism, research and education. Represented by over 50,000 members and 64 local chapters in the U.S., the Surfrider Foundation also has affiliations in Australia, Japan, France, and Brazil. Visit us at www.surfrider.org



Gulf Restoration Network (GRN) is a gulf wide conservation organization committed to protecting the Gulf of Mexico and all the natural communities and human communities that comprise the gulf south. GRN works to protect the rivers, wetlands, estuaries, and coastlines that define the Gulf of Mexico from Texas to Florida. We conduct public education and outreach, use litigation, conduct science based advocacy, and work to enact meaningful public policy that leads to a healthier and more productive Gulf of Mexico. Visit us at www.healthygulf.org



The mission of the Indian Riverkeeper is to protect and restore the waters of North America's most diverse estuary, the Indian River Lagoon and its watersheds, fisheries, and habitats, through advocacy, enforcement, and citizen action. Indian Riverkeeper is affiliated with other "Waterkeeper" organizations around the world through the National and International Waterkeeper Alliance. Waterkeeper Alliance is the umbrella organization for more than 190 Waterkeeper programs located around the world. The Waterkeeper movement and philosophy is based on the notion that the protection and enjoyment of a community's natural resources requires the daily vigilance of its citizens, and that Waterkeepers must serve as a living witness to the condition of the ecosystem, and be an advocate for the public's right to protect and defend the environment. Visit us at www.indianriverkeeper.org



The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Visit us at www.nature.org



1000 Friends of Florida promotes healthy urban and natural places by wise management of growth and change. We educate, advocate, negotiate and, when necessary, litigate to protect our high quality of life. We help citizens have the technical knowledge and access needed to ensure that public and private decisions lead to livable communities. Our planners, attorneys and community activists work to protect natural areas, fight urban sprawl, promote sensible development patterns, and provide affordable housing. Above all, we strive to give citizens the tools to keep Florida's communities livable. Founded in 1986, 1000 Friends of Florida is a 501(c)(3) nonprofit membership organization. www.1000fof.org

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Florida's coastal and marine habitats and numerous ecological and economic resources provide invaluable assets to the millions of people who live in Florida or visit the state each year. The coast is Florida's economic engine. Florida's world-class beaches and coastal waters generate tens of billions of dollars from tourism and recreation and provide habitat for numerous species of fish, birds, sea turtles, and other wildlife. Coastal marshes, mangrove forests, seagrass and oyster beds, and other habitats remove excess nutrients and pollutants, act as a buffer against major storms and flooding, and support the vast majority of Florida's marine fish and shellfish. Furthermore, the coral reefs off the Southeast coast and Florida Keys are home to thousands of marine species, support a thriving tourism industry, and protect Florida's coasts from erosion and storm damage. These coastal and marine systems define Florida and frame the lives of Floridians. But these precious natural resources are at risk from destruction, misuse, and pollution.

The Florida Coastal and Ocean Coalition created this second, updated *Blueprint, Florida's Coastal and Ocean Future: An Updated Blueprint for Economic and Environmental Leadership*, to inform state leaders and the public of current issues affecting Florida's environment, economy, and citizens. This report addresses many continuing and some new issues affecting Florida's coastal and marine environments since 2006, and also recommends specific actions to improve the environmental and economic health of Florida's natural resources.



Sea oats and san dunes, Florida
Credit istock.com

This is a pivotal time for Florida, both in terms of its environment and economy. Events such as the *Deepwater Horizon* oil spill, election of new Florida leadership, and the fragile state of our nation's economy provide new opportunities and challenges for Florida's decision makers. In order to create a sustainable Florida, we must make our environment a priority, which in turn will help boost our economy.

Each chapter of this *Blueprint Update* discusses a major issue affecting Florida's coastal and marine environments and provides recommendations to address these issues. One of the most recent and major coastal and marine events was the *Deepwater*

Horizon explosion and oil spill in 2010. This tragedy, which began with the loss of eleven lives, quickly became an environmental disaster for the Gulf of Mexico and its five bordering states. The *Blueprint Update* addresses many of the concerns raised after the spill and recommends actions for restoring the Gulf of Mexico. The *Blueprint Update* addresses coastal policy and development, protecting marine ecosystems and wildlife, coastal water quality, and planning the future of our oceans and coasts. The Coalition also makes recommendations for protecting, preserving, and enhancing Florida's natural resources.

The interconnectedness between Floridians and the state's coastal and marine resources affords Florida's leadership the unique opportunity and obligation to sustainably manage these resources for the benefit of everyone who lives in and visits our state.

A Japanese proverb advises that “vision without action is a daydream; action without a vision is a nightmare.” The Florida Coastal and Ocean Coalition believes that Florida needs both a vision for protecting its coastal and ocean resources and a plan of action for carrying out that vision. The Coalition is a group of nine organizations working together to conserve, protect and restore Florida’s coastal and marine environment. We have created this *Blueprint Update* to lay out a vision and a plan to protect Florida’s coasts and oceans.

Florida is in an extremely unique position: our coastal and ocean resources not only make this state the special place we cherish, but they also support the economies and industries that allow Florida to prosper. In these tough economic times, it is vital to protect and restore the natural resources that bring jobs, industries, and visitors to Florida.

Coastal tourism and recreation are two of Florida’s top ocean industries,¹ and both depend on healthy ecosystems. In Florida, having abundant fish and wildlife, public access to beaches and state parks, and clean rivers, springs, bays, and oceans is a matter of economic survival. The state needs a strong framework to best manage these resources to ensure their long-term health and economic return. Without a guiding framework, Florida risks more overdevelopment, a serious decline in our quality of life, degraded coastal waters, the loss of valuable fish and wildlife, and the heavy cost of ecosystem restoration and recovery.



Lighthouse at St. Marks National Wildlife Refuge, Florida
Credit istock.com

Tourism was responsible in 2010 for welcoming more than 82.3 million visitors, who spent over \$62.7 billion, generating 22 percent of the state’s sales tax revenue and employing nearly one million Floridians.² Each year, \$20 billion and 250,000 jobs result directly from fish and wildlife in Florida, and boating activities in state waters contribute \$17 billion and another 203,000 jobs.³ Wildlife viewing is a significant pastime in Florida, accounting for \$5.6 billion and 51,367 jobs. In 2006, 1.6 million people visiting the state participated in wildlife viewing in Florida, the majority of whom came to view coastal and marine wildlife.⁴

This report discusses the major issues facing Florida’s coasts and oceans, and outlines specific steps that our Florida leaders should take to protect these vitally important resources so they are able to provide economic and recreational uses for generations.

The Coalition wishes to work with Florida’s leaders: the Governor, Cabinet, Legislature, Congressional delegation and many state agency heads, to take these steps together for a better state coastal and marine environment and economic future.

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1. Kildow, Judith. Phase II: Florida’s Ocean and Coastal Economies Report. National Ocean Economics Program. Monterey Bay Aquarium Research Institute. (2008) p. 24. <http://noep.mbari.org>.
 2. VISIT FLORIDA Annual Report 2010-2011. http://www.visitflorida.org/am/vfcustom/annualreport/VF_annualreport2010_125.html
 3. Florida Fish and Wildlife Conservation Commission. July 2011. Economics of Fish and Wildlife Recreation Seafood Industry and Boating estimates.
 4. Economics of Fish and Wildlife Recreation. <http://www.myfwc.com/media/1496521/EconomicsOfFishAndWildlife-July2011.pdf>. September 2011

I. A NEW REALITY: LESSONS LEARNED FROM THE BP OIL SPILL AND STEPS NEEDED FOR RESTORATION

Lessons from the BP Spill

In April 2010, what began as a human tragedy soon became an environmental disaster of historic proportions when the BP Macondo well blew. The burning inferno of the *Deepwater Horizon* oil rig portended a disaster that would damage 600 miles of north, central and eastern Gulf coastlines, disrupt Florida's tourism and commercial and recreational fishing economy, our natural heritage, impact the lives of people in coastal communities, and damage already-stressed fisheries and wildlife populations and habitat.

For three months, BP and the federal government struggled to stop the flow of oil into the Gulf, and it became quickly apparent that the unprecedented scale of the spill exceeded the capacity of conventional oil spill responses. William Reilly, former U.S. Environmental Protection Agency chief under George H. W. Bush, served as Co-Chair of the Presidential Oil Spill Commission which was convened to examine the spill response. Reilly testified in 2011 that “a culture of complacency that affected both government and industry” [surrounded the spill] and “I think the reality is that none of us were prepared for this.”⁵ In the end, it was estimated that roughly 4.9 million barrels (over 205 million gallons) of oil was discharged during the spill into the Gulf of Mexico, a semi-enclosed ocean basin.⁶

In an attempt to mitigate the spill disaster, BP made a controversial decision early on to use chemical dispersants to dilute the oil at the source of the spill (miles underwater) as well as on the water's surface. About 1.8 million gallons of dispersants, such as Corexit 9527 and 9500, were used.⁷

The use of dispersants was viewed by many as a trade-off to prevent the shock of oil-soaked beaches, but it came at the expense of injured marine life and compromised water quality. Far from the oil disappearing, scientists detected plumes and clouds made up of the crude oil that had broken down into droplets in the water column. Some academic and industry experts believed breaking up the oil would expedite natural biological breakdown of the petroleum.⁸ Many of the dispersants' long-term effects on the food chain and water quality are not well known. Despite claims from some in the Obama Administration in early August 2010 that the “vast majority of the oil was gone,” University of South Florida and University of Georgia researchers continue to find evidence of unrecoverable submerged oil on the seafloor.⁹

BP used numerous methods to try to remove the oil at sea to minimize the impacts on our beaches. The mechanical recovery of the oil has only netted three percent of the oil spilled.¹⁰ A critical lesson is that most booms were inadequate and had the unintended consequence of trapping oil in the marshes – which may have worsened habitat damage. Skimmer boats were, unfortunately, few and far between. Five percent of the oil was burned at the sea surface.¹¹

Despite the use of chemical dispersants and the mechanical effort to recover spilled oil, tar balls, sheens, and oily

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5. Spill Panel Releases Offshore Drilling Recommendations. January 12, 2011. <http://www.eenews.net/tv/transcript/1264>. Transcript of press event
 6. National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, *Deep Water, The Gulf Oil Disaster and The Future of Offshore Drilling*, p. 167 (January 2011)
 7. Earthjustice, *The Chaos of Cleanup*. (2011) <http://earthjustice.org/features/the-chaos-of-clean-up>
 8. EPA – Questions and Answers on Dispersants. <http://www.epa.gov/bpspill/dispersants-qanda.html#application>
 9. Palm Beach Post, ‘Dirty Blizzard’ troubles scientists studying the Gulf oil spill. May 2011. <http://www.palmbeachpost.com/news/dirty-blizzard-troubles-scientists-studying-gulf-oil-spill-1508909.html>
 10. National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, *Deep Water, The Gulf Oil Disaster and The Future of Offshore Drilling*, p. 169 (January 2011)
 11. BP *Deepwater Horizon* Oil Budget. http://www.noaanews.noaa.gov/stories2010/PDFs/OilBudget_description_%2083final.pdf. December 2011

“mousse” did wash ashore. Crude oil blanketed Louisiana wetlands and marshes, as well as primary beaches in Alabama and northwest Florida. Sticky crude and oil debris hit Florida heavily in Perdido Key and Pensacola Beach. The incidences of washed-up oil continue to hit the sugar-sand beaches of the panhandle, and indications are they are far from over.¹²

In addition to the observable effects of the oil spill, scientists believe it is likely that there are “subtle, delayed, indirect and potentially synergistic impacts of these widely dispersed, highly bioavailable and toxic hydrocarbons and chemical dispersants on marine life from pelicans to salt marsh grasses and to deep-sea animals.”¹³

However, the damage to Florida’s coastal resources could have been much worse. The favorable location of the Loop Current, at that time, helped to prevent oil from entering the Florida Straits and Gulf Stream, potentially affecting the Florida Keys and Southeast Coast.

The economic damage of the oil spill to Florida’s fisheries and tourism economy has been substantial. To date, Florida has received the largest amount of paid economic damage claims from the Gulf oil spill - \$2,230,267,740 out of a total of \$5,466,287,765 paid for all Gulf Coast claims.¹⁴ Numerous studies are underway as part of the Natural Resources Damages Assessment process and by academic researchers to determine the short- and long-term effects of the spill on marine mammals, fisheries, deep coral, birds, sea turtles, seagrasses, oysters, marshes and other natural resources in the Gulf, as well as the loss of use by the public of those resources.



Juvenile Loggerhead Turtle, Indian River Lagoon
Credit Jim Angy

The BP Spill’s Aftermath: Identifying the Way Forward

The Natural Resources Damage Assessment Process for Recovery

The Oil Pollution Act of 1990 (OPA) was created in response to the *Exxon Valdez* oil spill. This federal statute establishes liability for the discharge of oil to U.S. waters and shorelines. A major goal of OPA is to restore natural resources that are injured and services that are lost due to oil spills. Decisions on impacts and restoration are made by a team of federal and state experts representing the Natural Resource Damage Assessment (NRDA) Trustees. The trustees represent the National Oceanic and Atmospheric Administration (NOAA), the Department of Interior (DOI), and the Gulf Coast states of Alabama, Florida, Louisiana, Mississippi, and Texas.

The NRDA assessment process is divided into three phases: (1) Pre-assessment: the federal and state natural resource trustees evaluate injury, determine whether they have the authority to pursue restoration, and whether it is appropriate to do so; (2) Restoration planning: the trustees evaluate and quantify potential injuries and use that information to determine the type of restoration; and (3) Restoration implementation: the trustees and BP implement restoration. The public also had the opportunity to participate in the restoration planning process.¹⁵

12. Skytruth Alert: unknown oil in Gulf of Mexico. Downloaded November 2011 <http://alerts.skytruth.org/report/483c1c93-bf2f-3c87-955b-d66dda135708#c=stae>

13. Peterson, C.H. et. al. 2011. *A Once and Future Gulf of Mexico Ecosystem: Restoration Recommendations of an Expert Working Group*, The Pew Environment Group. Washington, DC. p.3

14. Gulf Coast Claims Facility, Status Report as of October 24, 2011, www.GulfCoastClaimsFacility.com.

15. Natural Resource Damage Assessment Process. <http://www.dep.state.fl.us/deepwaterhorizon/nrda.htm>. December 2011

As the primary federal trustee for coastal and marine resources, the NOAA is responsible for ensuring that coastal and ocean resources injured by the *Deepwater Horizon* oil spill are restored. To date, the pre-assessment phase of the NRDA is mainly completed and the restoration planning phase is formally documenting impacts to the Gulf's natural resources and to the public's loss of use and enjoyment of these resources.

Under an April 2011 agreement between the NRDA trustees and BP, BP has agreed to provide \$1 billion toward early restoration projects to speed up restoration in the Gulf of Mexico and to address injuries to natural resources caused by the spill. This agreement is a first step toward fulfilling BP's obligation to fund the complete restoration of injured public resources. The trustees announced on December 14, 2011, the selection of 8 initial projects (2 in Florida) to receive funds from the \$1 billion Early Restoration Agreement.¹⁶



School of fish in coral reef, Gulf of Mexico
Credit istock.com

The Florida Department of Environmental Protection (DEP) provided stakeholders with a “Draft Initial Analysis of Projects Appearing to Meet the Oil Pollution Act and Framework Agreement Guidelines.”¹⁷ This draft Project List contained a total of over \$1.5 billion worth of restoration projects. The applicable laws and regulations, and BP's early restoration funding agreement, clearly limit restoration projects to those projects that respond to damages caused by the oil spill under study.

The Mabus Report

By August, four months after the *Deepwater Horizon* well blowout, the White House deployed Navy Secretary and former Mississippi Governor Ray Mabus to lead a series of public hearings throughout the Gulf and then issue a report of findings and recommendations. The “Mabus Report” – *America's Gulf Coast: A Long Term Recovery Plan after the Deepwater Horizon Oil Spill (September 2010)* – was designed to address issues that weren't covered by the Natural Resource Damage Assessment process under the Oil Pollution Control Act, 33 U.S.C. Section 2706.

Key recommendations in the Mabus Report included an acknowledgement of what the Gulf Coast culture and economy means to the nation and a recognition that the community needs to have input in the restoration. The Mabus Report recommended that restoration focus on the economic, environmental, and public health aspects of recovery, and highlighted the need to use fines collected through the federal Clean Water Act for immediate cleanup and long-term recovery. Congress must act before the recommendations can go forward. The Mabus Report also focused on coastal ecosystems, but did not delve into impacts on the critical – but lesser-known – deep sea and benthic habitats.

16. *Deepwater Horizon* Natural Resource Trustees Call for Input on Early Restoration of the Gulf. <http://content.govdelivery.com/bulletins/gd/FLDEP-21d166>. December 2011

17. Draft Initial Analysis of Projects Appearing to Meet the Oil Pollution Act and Framework Agreement Guidelines. September 2011. <http://www.dep.state.fl.us/deepwaterhorizon/projects.htm>

After diligent investigation into the BP drilling disaster, a diverse group of experts on the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, led by Co-Chairs William Reilly and Bob Graham (former Florida governor and U.S. Senator), released an analysis and recommendation for next steps in January 2011.¹⁷⁸

The Commission found that BP and its contractors made critically bad decisions that ultimately led to the disaster; the entire off-shore oil drilling industry was woefully under-regulated; and this failed system can claim some of the blame for the crisis we are now dealing with. The Commission report concluded that BP is not a ‘lone bad actor,’ and that, while the company was indeed among the worst operators in the Gulf for accidents, spills, fines, and penalties before April 20, 2010, BP was not alone.

The Commission recommended that a Gulf Coast Regional Citizen Advisory Board be created, which would allow the commercial and subsistence fishing communities, coastal mom-and-pop tourism industries, and the conservation community all to have a seat at the table to “check the math” and verify the oil industry’s claims. The Commission recommended that 80% of the eventual fines and penalties paid by BP and the other responsible parties be directed to the Gulf to jump-start the long-needed restoration of historic environmental damages that were exacerbated by BP’s spill.

The Commission recommended agency reform; specifically the need to split leasing and revenue departments completely from the safety and environmental compliance duties of the federal government. Although some steps have been made to separate these conflicting duties, a stronger firewall between leasing and regulatory oversight still needs to be provided.

Of course, any report is only valuable if it is acted upon. The public now awaits Congress to act upon the National Oil Spill Commission’s recommendations, so that the oil industry will have the regulatory certainty it needs to move forward, and so that oil drilling in the Gulf is as safe and responsible as possible.

The Gulf of Mexico Ecosystem Restoration Task Force Strategy

Recognizing the importance of the Gulf of Mexico and its ecosystems, and in response to the *Deepwater Horizon* oil spill and the recommendations proposed in the Mabus Report, President Barack Obama established the Gulf Coast Ecosystem Restoration Task Force (Task Force) on October 5, 2010. The Task Force is charged with coordinating the long-term conservation and restoration of America’s Gulf Coast. The Task Force is made up of senior officials from seven federal cabinet agencies, the Executive Office of the President, and one representative each from the five Gulf Coast states of Alabama, Florida, Louisiana, Mississippi and Texas.



Gulf Coast states bordering Gulf of Mexico

18. National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, *Deep Water, The Gulf Oil Disaster and The Future of Offshore Drilling* (January 2011). <http://www.gpoaccess.gov/deepwater/deepwater.pdf>

The Task Force is charged with developing a Gulf of Mexico Regional Ecosystem Restoration Strategy. The strategy will drive action and guide the long-term collaboration that's needed to address and reverse wide-spread environmental degradation in the Gulf; not just that from the *Deepwater Horizon* oil spill, but earlier and repeated damage from hurricanes, as well as other impacts such as modifications to rivers and harbors. The final strategy is due to the President in December 2011.

This strategy will require Congressional action to be properly funded and successful. Both a Senate (SB-1400) and House (HB-3900) bill have been filed (RESTORE ACT) this session in Congress for that purpose.

Current Status of Oil Drilling in the Eastern Gulf

Before the *Deepwater Horizon* disaster, the Obama Administration announced it would seek to open up the Eastern Gulf of Mexico (stretching from the Florida Panhandle to the Keys) to offshore oil and gas drilling, which have been off limits to drilling for many years. After the BP spill, however, the Obama Administration reversed its position, citing safety and environmental concerns, and has not gone until recently with proposals to open up the Eastern Gulf to offshore lease sales.¹⁹ On November 8, 2011 the Obama Administration announced it will open previously restricted areas of the Gulf of Mexico to oil drilling.²⁰



Deepwater Horizon Flyover
Credit Gulf Restoration Network

At the state level, a bill introduced in the 2009 legislative session would have allowed drilling in Florida state waters, which is currently prohibited. The Florida House passed the bill, but the Florida Senate failed to hear it, citing concerns about such a large decision coming up at the last minute and not having enough time for a full vetting. In the 2010 legislative session, an offshore drilling bill was introduced, but was removed when the *Deepwater Horizon* rig exploded, sank, and began releasing oil into the Gulf of Mexico. Under Florida's new gubernatorial leadership, and with a renewed interest by the Senate leadership, a bill allowing drilling within Florida waters could appear in future legislative sessions.

The *Deepwater Horizon* oil spill brought into sharp focus many of the concerns that Florida citizens and environmental organizations have had for decades. In response, Save our Seas, Beaches and Shores, Inc. started a petition drive to collect 700,000 signatures to try to place a Constitutional Amendment on an upcoming ballot that would prohibit oil and gas drilling in state waters. Then-Governor Charlie Crist called a special legislative session in 2010 to try to put the Constitutional Drilling Ban Amendment on the November 2012 ballot that would ban drilling in state waters. The Legislature sent a clear message of its opposition to a Constitutional Amendment by adjourning the special session in less than one hour. Save our Seas, Beaches and Shores, Inc. continues educating Florida's leadership on the dangers of offshore drilling and collecting signatures through a network of supporting environmental organizations.

19. The Ledger: *Obama: No Drilling in the Eastern Gulf of Mexico or Nation's East Coast*. December 2010. <http://www.theledger.com/article/20101202/news/12025051?p=2&tc=pg>

20. Department of the Interior. *Secretary Salazar Announces 2012-2017 Offshore Oil and Gas Development Program*. November 2011. <http://www.doi.gov/news/pressreleases/Secretary-Salazar-Announces-2012-2017-Offshore-Oil-and-Gas-Development-Program.cfm>

Recommended Actions

- The state should continue the current ban on drilling in state waters.
- Congress should pass legislation directing 80% of the Clean Water Act fines toward Gulf restoration and establishing a Gulf Coast Restoration Council and Regional Citizen’s Advisory Board to provide oversight, accountability, and input to federal, state and local industry actions that affect Gulf resources and communities.
- Congress, the federal government and the industry should implement the recommendations of the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling regarding environmental standards and preparedness.
- The Natural Resource Trustees should provide and periodically update a comprehensive list and overview of the natural resource damage assessment projects and studies they are carrying out, as was done in response to the *Exxon Valdez* oil spill.
- Restoration funds should be used to rebuild ecosystems and contribute to a healthy, productive, and biologically diverse coastal and marine ecosystem – the backbone of the Gulf region’s economic and cultural *well-being*. Projects should reflect an understanding of the factors that affect species populations and the coastal and marine habitat conditions needed to support those species.

II. PROTECTING THE COAST

It is ironic that Florida, arguably the most important coastal destination in the United States, has failed to ensure the long-term protection and resiliency of its beach and dune environment by continuing to allow – and even subsidize – high-risk development adjacent to (and on) the seaward-most dunes on the most critically eroding beaches in the state. Coastal development is too often governed by short-sighted policy directives, inadequate regulations, and political pressure.

Many coastal areas are dominated by “sun and sand” tourism with a focus on rapid and often speculative coastal growth. Florida’s tourist industry represents some of the most concentrated tourism in the world and it drives local, regional, and state economies. The integrity of Florida’s economy and society are intricately tied to the integrity of the natural systems; increases in the loss of the natural systems have obvious and subtle impacts to the economic and social foundations of the state.

Yet increased development along the coast increases demands for drinking water and infrastructure, and produces millions of gallons of wastewater and runoff that must go somewhere – frequently into the ocean, where it degrades important coastal habitats. Some impacts of coastal development are apparent and largely irreversible, or costly to restore -- the destruction of dunes, loss of wetlands that buffer our built and natural coast lines, or the removal of mangroves. These increase vulnerability of human and natural communities to coastal hazards, placing people, property, and natural areas at risk. The less obvious impacts include pollution, increased flooding, chronic turbidity on coral and shellfish reefs, and food-web shifts that can also cascade into deeper waters. These impacts can be prevented or minimized with more information and careful planning.²¹

Coastal development policies do not take into account the scientific predictions of increased storm activity and sea level rise and continue to allow development in areas that are at risk from the impacts of short and long term coastal hazards. There are no effective state policies in place to encourage people to build (or rebuild after storms) away from

21. Earnest, G. E., Martin, R. E. (1999) Martin County Beach Nourishment Project Sea Turtle Monitoring and Studies. Ecological Associates, Inc., Jensen Beach, Fl. http://www.beachapedia.org/Beach_Fill.

these vulnerable areas and do not take into account the scientific predictions of increased storm activity and sea level rise. In addition, the Federal Emergency Management Agency (FEMA) and the Reinsurance/Insurance industries are important partners that could affect large-scale, high level changes to protect natural resources and human communities and decrease their vulnerability to coastal hazards.

Unfortunately, communities rely on shoreline hardening, seawalls and repetitive “beach renourishment” projects to protect high-risk coastal development. Sea walls damage the coast. They inhibit beach recovery after storm events, deprive the beach of upland sand, degrade or destroy sea turtle nesting and other coastal species habitat, and increase erosion. Sea walls and other forms of coastal armoring now extend along 14 to 25 percent of Florida’s sandy beaches. In some counties, such as Palm Beach and Volusia, between 40 and 50 percent of the shoreline is armored.²²

In a typical beach nourishment project, sand is dredged offshore and piped onto the beach. A slurry of sand, shell, and water flows from the pipe onto the beach. Bulldozers then move this new sand on the beach and in the surf zone. While these projects provide protection to upland development from storm events, beach nourishment projects have other, damaging impacts, including siltation of coral reefs, turbidity, burial of essential fish habitat, steep “scarping” along the beach slope, loss of recreational surfing and diving as well as sand quality issues that can affect turtle nesting and beach habitat.²³



Turtle Tracks Along Sea Wall
Credit Wilma Katz

Beaches are dynamic, advancing and retreating over time. In many areas of Florida, these natural processes have been disrupted by shoreline development and related human activities. Of the approximately 1,250 miles of Florida’s coastline, 825 miles are sandy beaches.²⁴ Almost 60 percent of Florida’s beaches are eroding,²⁵ and almost half (49%) of the state’s beaches are experiencing critical erosion. A beach designated as “critically eroded” is one where upland structures, infrastructure or other natural resources are actually threatened by or have already been lost to beach erosion.²⁶

Historically, most of Florida’s beach erosion is attributable to the state’s engineered navigation inlets and the jetties used to stabilize those inlets. They interrupt the natural flow of sand along the shoreline and cause sand to accumulate in the inlet channel and against jetties.²⁷ The state is trying to address this by requiring inlet management plans aimed at restoring the natural flow of sand around the inlets.²⁸ But more can be done.

Storms, sea level rise, and inappropriate coastal development are also major contributors to shoreline retreat.²⁹ The ongoing effort to protect shoreline development from storm surge and erosion drives the need for beach nourishment and sea walls. The recommendations below highlight ways in which the state and local governments could take action to reduce the development pressures on critically eroding beaches, reduce the loss of life and property from unwisely-sited, high-risk shoreline development, and better ensure the long-term protection and resiliency of beaches, dunes and the wildlife habitat they support.

22. Coastal Technology Corporation. *Florida Beaches Habitat Conservation Plan Armoring Study, Year 3 Summary Report for Florida Department of Environmental Protection*. 2011. Vero Beach, FL. Pg 9

23. Earnest, G. E., Martin, R. E. (1999) Martin County Beach Nourishment Project Sea Turtle Monitoring and Studies. Ecological Associates, Inc., Jensen Beach, FL.; http://www.beachapedia.org/Beach_Fill

24. Florida Department of Environmental Protection – Beach Erosion Control Program. <http://www.dep.state.fl.us/beaches/programs/bcherosn.htm>. December 2011

25. <http://dep.state.fl.us/beaches/publications/pdf/CritEroRpt7-11.pdf>

26. *Id.*

27. *Id.*

28. 161.143, Florida Statutes 2011 http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0100-0199/0161/Sections/0161.143.html

29. Sea Turtle Conservancy and Florida Wildlife Federation. *Sea Turtle Homecoming, Class of 2010 : A Proactive Coastal Conservation Agenda for Florida*. (2011) pg. 6

Florida's Coastal Construction Control Line (CCCL) program regulates construction near the shoreline. The CCCL is not a "setback" line, but a regulatory line. The state regulates how a building can be constructed and sited seaward of the line, but does not prohibit building seaward of that line. The CCCL program was developed over 25 years ago.

The inherent problem with the program is it allows people to build major structures too close to – or on top of – the primary frontal dune system adjacent to critically eroding beaches, which ultimately disrupts the natural fluctuations of the dune and adjacent beach system. The shoreline loses resiliency to storm-driven erosion, and upland structures need continual protection along hundreds of miles of Florida's coast. In addition to vertical seawalls to protect structures, other engineering approaches include quarter-mile-long cement hard sand bags known as "geotubes," and massive off-shore piles of rock known as "breakwaters." These armoring structures can dramatically alter the Florida coastline, exacerbate erosion on downdrift beaches, and cause significant harm to sea turtles and other wildlife.

Many CCCL policies governing beachfront development are complicated, outdated and unable to sufficiently limit high-risk shoreline development. The rules are laden with exemptions and variances. According to the Florida Department of Environmental Protection, which oversees the program, the state does not permit structures that are designed or sited in such a way "as to cause a significant adverse impact to the beach and dune system." That is, the structure must not interfere with the natural system's ability to recover from a coastal storm, must not destabilize the natural system, or cause a "take" of sea turtle habitat.³⁰ Clearly, that is not always the case in reality. Some needed program changes are noted below. These recommendations may require changes in the statutes and rules governing the CCCL program.

A reevaluation of policies allowing construction seaward of the 30-year Erosion Projection Line is needed. The CCCL program essentially prohibits construction seaward of its 30-year Erosion Projection Line (EPL) (a line predicting where the seasonal high tide will be in 30 years). This is the only setback in the CCCL program. However, exemptions are mandated for single family homes and are also routinely granted if there is an "existing line of construction" or a pending beach nourishment project, thereby allowing construction in arguably the most high risk area of the coast.

How the EPL is calculated and measured is also problematic. The projection only looks at historical erosion records and does not factor in the probability of storm-induced erosion. An EPL that includes frequency and/or intensity of storms would provide a more realistic estimate of likely shoreline changes over time. Also, the regulatory line can be waived or moved seaward after beach nourishment. This policy allows structures to be built on land that is projected to be underwater in 30 years – even though the projected life of the nourishment project is only 7 years. Beach nourishment can therefore be used as a justification to move the line further seaward to accommodate potentially high-risk development.

There is no consistent prohibition against building on top of and seaward of the crest of the most seaward dunes. There is a need to clarify, strengthen, and consolidate statutory provisions for dune protection. Dune conservation zones could be established that prioritize protecting and restoring these important features. These conservation zones should include dune setbacks that prohibit inappropriate construction. A clear mitigation process could be developed to minimize impacts and mitigate for those that cannot be avoided.

30. Florida Department of Environmental Protection Homeowner's Guide to the Coastal Construction Control Line. pg 5. <http://www.dep.state.fl.us/beaches/publications/pdf/propownr.pdf>

Under the CCCL Program, if adjacent structures have established a “reasonably continuous and uniform line of construction,”³¹ structures are allowed farther seaward than would normally be allowed. If the line of construction was established 25 years ago when there was 150 feet of stable beach, a property owner can still build to that line – even though there is now only 30 feet of rapidly eroding beach. The reliance on vague and confusing terms such as “continuous” and “reasonable” can result in poorly sited, high-risk construction. This exemption should be restricted or eliminated

The 2011 Florida Legislature passed legislation significantly changing the comprehensive planning requirements, policies, and strategies of the state and effectively removed substantial amounts of the state oversight of local comprehensive planning decisions. The new legislation did away with Chapter 9J-5 of the Florida Administrative Code, which contained much of the state’s coastal planning and protection criteria for local comprehensive plans.

Comprehensive Planning and Coastal Resource Protection

Additionally, Florida leadership has merged numerous state agencies, including the Department of Community Affairs (DCA), into a new agency, the Department of Economic Opportunity, in an attempt to garner more jobs, which is a major goal of the state.³² While this reorganization may appear to create more efficiency, there are major concerns with how such an agency structure can ensure environmentally sustainable growth and jobs. Over the decades, DCA was vital to ensuring that growth management laws in coastal high-hazard areas were appropriately met. Fortunately, Florida Statute 163.3178, which addresses the need for long-term coastal planning and prioritizes the state’s intent to protect beaches and dunes from inappropriate shoreline development, was not altered. Many consider this law to be a cornerstone for coastal planning. There is a need to coordinate local coastal development planning with the state’s long-term protection of coastal resources and the beach/dune system.

The state could link beach management and protection policies to local coastal planning. Florida’s Strategic Beach Management Plan and Erosion Control Program rely heavily on publicly funded beach nourishment to protect coastal structures and restore eroded beaches. Few local governments require coastal setbacks that are stronger than what the state CCCL program requires. The state could use the dollars distributed through the Erosion Control Program as an incentive for local governments to establish stronger setbacks. One way to do this would be to allow for a higher ranking for public funding of local beach projects when the local government has appropriate coastal setbacks and other beach protection policies in its comprehensive plan. Additionally, requiring all CCCL permit applicants to demonstrate that their project does not violate the local comprehensive plan’s coastal elements would help connect the CCCL Program to local planning efforts.

Finally, post disaster redevelopment planning provides unique opportunities to improve coastal planning and protection policies, assess local coastal erosion rates, and give greater notice to coastal property owners about the risks of living near the beach. The redevelopment of storm-ravaged areas opens avenues to do things differently so that future losses are limited and new coastal development doesn’t harm the beach system. In this way, coastal economies become more resilient. These plans can also be used to encourage or incentivize the landward relocation of high-risk coastal development. As noted, the 2010 Florida Legislature abolished Chapter 9J-5, which included the explicit requirement that local governments develop Post Disaster Redevelopment Plans. However, the Department of Community Affairs (DCA) recently completed a multi-year Post Disaster Redevelopment Planning initiative.

31. 161.052(2)(b), 161.053(5)(b), Florida Statutes 2011. http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0100-0199/0161/0161ContentsIndex.html

32. Locations for Department of Community Affairs Divisions and Programs Beginning October 1 2011 www.dca.state.fl.us/NewDepartment.cfm

Pilot Plans were completed for five coastal counties and a guidebook was developed to help other counties with their plans. The Legislature should investigate and reinstate the requirement that local governments develop Post Disaster Redevelopment Plans, preferably in accordance with the best practices outlined in the guidebook and other post-disaster planning publications.

Acquire Strategic Coastal Lands When Possible

Strategically targeted coastal land acquisition is one of the best ways to protect Florida's remaining undeveloped coastal lands and increase the resiliency of Florida's natural, economic and social infrastructures. Strategic acquisition for fee simple or through the purchase of conservation easements could be used to limit development on coastal dunes, expand existing coastal parks and other conservation areas, limit redevelopment in very high risk areas, or compensate property owners when sound coastal policies restrict development.

Florida Forever is the state's highly successful conservation land-buying program. Over the years, the program has helped to protect 2.5 million acres of environmentally sensitive lands. Prior to the 2009 legislative session, Florida Forever was fully funded at \$300 million per year. In 2009, the Legislature did not fund Florida Forever, and in 2010, it was only funded at five percent of historic levels. In 2011, Governor Scott vetoed all funding for this world-renowned land acquisition and protection program. It is vital that the state reestablish funding for the Florida Forever land buying program, so that important habitats, such as that in the Archie Carr National Wildlife Refuge, can be protected.

The Florida Forever list includes a category entitled "climate change lands projects" that includes proposed coastal land acquisition projects. Consistent funding of Florida Forever is needed in order to ensure that these important projects can be acquired.



Archie Carr National Wildlife Refuge
Melbourne Beach, Florida

Another potential source of acquisition funds for coastal lands is money obtained as a result of the *Deepwater Horizon* oil spill disaster, such as through the Gulf Restoration or Natural Resources Damage Assessment process. For example, the Gulf of Mexico Ecosystem Restoration Task Force has recommended the development of a Gulf-wide network of conservation areas that will protect habitat and wildlife, support ecosystem services, and provide recreational and commercial opportunities.³³

In another example, Florida Department of Environmental Protection has included several land acquisition projects on its list of potential Florida Natural Resources Damage Assessment projects, including: St. Vincent Sound to Lake Wimico; Garcon Ecosystem; Perdido Key and additions to the St. Marks Wildlife Refuge, south of Tallahassee.³⁴ Acquisition of strategic coastal lands protects important habitat and watersheds, provides natural storm surge buffer, and mitigates for the effects of sea-level rise. The acquisition of conservation land and easements should remain an important tool for protecting Florida's coast.

33. Gulf Coast Ecosystem Restoration Task Force, *Gulf of Mexico Regional Ecosystem Restoration Strategy (Preliminary)*, October 2011.

34. Department of Environmental Protection, "Draft Initial Analysis of Projects Appearing to Meet the Oil Pollution Act and Framework Agreement Guidelines," September 14, 2011. <http://www.dep.state.fl.us/deepwaterhorizon/projects.htmbeaches/publications/pdf/propownr.pdf>

Reduce or Eliminate Subsidies for High Risk Coastal Development

Florida provides low-cost, subsidized homeowner's wind insurance to people living near the coast. The state's Citizens Property Insurance Corporation (CPIC) oversees and administers the program. Citizens Property Insurance coverage also includes builder's risk insurance. Coverage is provided to builders, investors, and homeowners regardless of erosion rates, storm history, frequency of repeat claims, or proximity to the mean high-water line. Coverage is even provided when people build seaward of the 30-year erosion line on possibly the most high-risk area in the state. Citizens Property Insurance was originally intended to be the insurer of last resort; now, it has become the largest wind insurance carrier in the state, subsidizing high-risk construction seaward of the Coastal Construction Control Line.

Legislation aimed at reforming Citizens Property Insurance was introduced during the 2011 legislative session, but it did not pass. The Legislature and Governor should support limiting coverage seaward of the Coastal Construction Control Line so that Florida's citizens will not continue to subsidize high-risk development that increases the need for publicly-funded beach renourishment projects and seawalls.

Insurance coverage should be prohibited in the highest risk areas (i.e. seaward of the Erosion Protection Line) and coverage should be linked to sound coastal protection policies. For example, reduced premiums should be offered for building and rebuilding further landward on a coastal lot, coverage for multiple repeat claims could be eliminated for all Coastal Construction Control Line-permitted structures, and coverage should come with comprehensive public notification of the hazards associated with building seaward of the Coastal Construction Control Line.

Revising Coastal and Ocean Policies to Address Sea Level Rise

Florida's coastal and ocean policies need to be revised so that the state adequately plans for rising sea levels. Rising sea levels will increase beach erosion, cause saltwater intrusion into fresh water supplies, inundate coastal marshes and other important habitats, and make coastal property more vulnerable to storm events and surges.³⁵

The state needs to plan for sea level rise in order to protect our natural resources, our infrastructure, economy, and the safety and well being of Florida's citizens. Fortunately, as part of the major rewrite in 2011 of Florida's growth management law, The Community Planning Act of 2011 gives local governments the authority to include sea level rise adaptation strategies in the coastal management elements of local comprehensive plans.³⁶

Florida needs to consider the impacts of sea level rise in long term planning for the management of its beaches and coastal systems. We are better served to consider the impacts of sea level rise in Florida's beach management policies now rather than later.

35. Florida Coastal and Ocean Coalition. *Preparing for a Sea Change – A Strategy to Cope with the Impacts of Global Warming on the State's Coastal and Marine Systems*. (2008). http://www.flcoastalandocean.org/PreparingforaSeaChange/Climate_Change_Guide_for_Florida_Preparing_for_a_Sea_Change.pdf

36. Ch. 139, Florida Statutes 2011

Recommended Actions:

- Local governments should include adaptation strategies for climate change, sea level rise, storms, and other coastal hazards in the coastal element of their local comprehensive plans. The state also should consider the impacts of sea level rise in long term planning for the management of its beaches and coastal systems.
- DEP should convene an advisory group of experts for a comprehensive reevaluation and reform of the Coastal Construction Control Line program to ensure that its stated goal “to preserve and protect [Florida’s beaches] from imprudent construction”³⁷ is being met.
- Florida should strengthen prohibitions on construction seaward of the 30-year Erosion Projection Line and should revise how the line is calculated to include frequency and/or intensity of storms to provide a more realistic estimate of shoreline changes over time.
- Florida should establish conservation zones and/or setbacks to prioritize protecting and restoring important coastal features, such as dunes.
- The Legislature should reinstate the requirement that local governments develop Post Disaster Redevelopment Plans with a strong coastal planning component addressing long term beach and coastal community resiliency. Beach management and protection policies should be directly linked to local coastal planning.
- The Legislature should provide meaningful funding for Florida Forever and other land acquisition programs, including in coastal high-risk areas.
- Florida should reduce or eliminate subsidies for high-risk coastal development and instead create incentives to move high risk development landward of the beach dune system. The state should limit subsidized Citizens Property Insurance coverage for construction seaward of the Coastal Construction Control Line.
- The state and coastal municipalities should place greater focus on regional and inlet-to-inlet management of their coastlines.
- The state should require that any plans for dredging and deepening inlets to accommodate new, larger size vessels as a result of the widening of the Panama Canal must be accompanied by a new and updated inlet management plan and an assessment of the impact on “downdrift” beaches.
- The state funded Erosion Control Program should be linked to improved coastal protection policies at the local level, such as dune protection setbacks and coastal planning.
- The state should work with the Insurance/Reinsurance industry to develop incentives for resilient development and redevelopment that include the benefits provided from functional natural areas.
- The state should work to support the creation of incentives that encourage “hazard smart” development and discourage development in vulnerable and sensitive habitats.
- The state should develop a common framework among partners for addressing hazard mitigation policies that lead to resilient coastal communities.



New Construction on Critically-Eroding Beach
Singer Island, Florida

37. 161.053, Florida Statutes 2011. http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0100-0199/0161/Sections/0161.053.html

III. FLORIDA'S MARINE ECOSYSTEMS, FISHERIES, AND WILDLIFE

Florida has 7.4 million acres of tidally submerged land, 8,426 miles of tidal shoreline, 825 miles of sandy beaches, and no portion of the state is greater than 60 miles from the coast.³⁸ With ten statute miles in the Gulf and three miles in the Atlantic, Florida owns more territorial seas (submerged offshore lands) than any other coastal state in the continental U.S.

Florida's coral and oyster reefs, from the Florida Keys to the snapper banks off the Panhandle, support incredible biodiversity and beauty that attract divers and fishermen from around the world. The Everglades "River of Grass," which drains into the coastal estuaries of South Florida and Biscayne Bay, support significant fisheries and wildlife that generate recreational opportunities for nearby urban populations. Sandy beaches off the Panhandle and Florida's east and west coast provide nesting habitat for endangered sea turtle populations that delight night-time visitors and help sustain the species. Seagrasses in Florida Bay, North Florida's Big Bend, and the Indian River Lagoon cover the sea floor for hundreds of square miles, providing food and shelter for abundant and diverse marine life and water fowl. These ecosystems support a thriving recreation and tourism industry, which in turn provides jobs. Without proper management, the resources that define and sustain Florida will be overcrowded, depleted, or destroyed, and our economy will suffer.

Our understanding of ocean ecosystems has expanded greatly in the past 30 years. Marine scientists and managers have learned about the many linkages within, and among, ecosystems, and have called for a more sophisticated approach called "ecosystem-based management." This approach explores the interconnections and stress capacity that an ecosystem can handle (whether physical, chemical, or biological.) The goal of ecosystem-based management is to ensure that activities and stressors don't exceed an ecosystem's carrying capacity or disrupt important interconnections. This approach should be implemented immediately to protect Florida's imperiled marine ecosystems, fisheries, and species.

Sustaining Commercial and Recreational Fisheries

Maintaining healthy, sustainable fisheries is vitally important to the state. Recreational and commercial fishing contribute immensely to the economy, quality of life, and character of Florida's coastal communities. Florida is one of the nation's premiere destinations for recreational fishing and is marketed as the "Fishing Capital of the World".³⁹ Florida also has more world-record fish catches than any other coastal state or country.

Florida also leads all states in economic return for its marine recreational fisheries. Recreational saltwater fishing alone contributes over \$5 billion and more than 50,000 jobs to the state's economy each year.⁴⁰ From 2008 to 2009, more than one million individuals bought a marine recreational fishing license; one third of them were out-of-state residents.⁴¹ More than 3,400 for-hire fishing licenses were also purchased, making Florida one of the largest charter

38. Florida's Lands and Waters - Brief Facts http://www.dep.state.fl.us/lands/files/FloridaNumbers_031011.pdf

39. VISIT FLORIDA. <http://www.visitflorida.com/fishing/>

40. Florida Fish and Wildlife Conservation Commission. *The Economic Impact of Saltwater Fishing in Florida*. Downloaded Sept. 2011. <http://www.myfwc.com/conservation/value/saltwater-fishing/>

41. *Id.*

fleet headquarters in the world.⁴² In 2008, recreational anglers on Florida's Gulf Coast made 16.9 million trips: 9.6 million private/rental, 6.7 million by shore and 595,000 by party/charter boat.⁴³

The Department of Commerce has ranked Florida's commercial fishery as the second highest of all states for in-state sales at \$13 billion annually, and the tenth highest in total landings revenue at \$116 million annually. Florida is also the third highest state for jobs supported by commercial fishing, providing 64,744 jobs in 2009.⁴⁴

Another important Florida fishery, particularly on the Gulf Coast, is oysters. Florida produces about 13 percent of the Gulf's oyster catch by weight, a \$6.9 million annual dockside value to the state. Apalachicola alone produces about 90 percent of Florida's oyster harvest.⁴⁵ Florida's oyster fishery industry currently faces two main threats. The first is the salinity levels of Apalachicola Bay, which are threatened by the ongoing battle between Florida, Alabama and Georgia over the U.S. Army Corps of Engineers' altered water levels in the Chattahoochee-Flint-Apalachicola River system. This has been hotly contested for over twenty years, with no clear end in sight. A recent court ruling, which allows Georgia and the Corps of Engineers to extract potable water for Atlanta from Lake Lanier, seems to put the downstream needs of Florida's Apalachicola Bay oysters on the back burner for now. But the final chapter hasn't been written yet. The second threat is the continuing problem of consumer perception regarding contamination of Gulf oysters following the April 2010 *Deepwater Horizon* oil spill. Even though the oil never hit Apalachicola, consumers are concerned about the health and safety of Gulf oysters – a major economic driver for the region. The Florida Department of Agriculture and Consumer Services (DACS), through its seafood marketing Division and VISIT FLORIDA have sought to reassure the consuming public that Florida seafood, particularly oysters, is readily available and safe to eat.



Snowy egret in oyster beds, Cedar Key
Credit istock.com

In addition to the commercial fisheries value, oyster reefs provide valuable ecosystem services including protecting shorelines from erosion from storm surges and waves, improving water quality, cycling nutrients, and serving as nursery and feeding area for many other commercially and recreationally valuable fish, crab and shrimp species. Yet more than 85% of the world's oyster reefs have declined, primarily due to overharvesting.⁴⁶ The Gulf of Mexico is the only region in the United States where oyster reefs are considered in fair condition (50-89% lost). Loss of oyster reefs threatens this valuable resource and the estuarine environment where they occur. Restoring oyster reefs for their full suite of ecological and economic services benefits oystermen, coastal communities and the state as a whole.

Overfishing

Overfishing threatens this valuable Florida economic driver and compromises the marine environment's health.

42. *Id.*

43. *Id.*

44. National Oceanic and Atmospheric Administration. 2011. Fisheries economics of the United States: 2009. NOAA Technical Memorandum NMFS-F/SPO-109. Accessed September 2011.

45. Couch, C., E. Hopkins, P. Hardy. 2010. Influences of environmental settings on aquatic ecosystems in the Apalachicola-Chattahoochee-Flint River Basin. 2010. USGS Water-Resources Investigations Report 95-4287.

46. Beck, M.W., Brumbaugh, R.D., Airolidi, L., Carranza, A., Coen, L.D., Crawford, C., Defeo, O., Edgar, G.J., Hancock, B., Kay, M.C., Lenihan, H.S., Luckenbach, M.W., Toropova, C.L., Zhang, G.F., and Guo, X.M. (2011). Oyster reefs at risk and recommendations for conservation, restoration, and management. *BioScience* 61(2):107-116.

Stopping overfishing is a winning proposition for the fish, fishermen, and Florida’s economy. Only through ecosystem-based management, increased stewardship and science-based regulations can we reverse the chronic decline of Florida’s fish species and ensure healthy fisheries that benefit the ecosystem, recreational and commercial anglers, and seafood consumers, who all help support our coastal economies.

The Florida Fish and Wildlife Conservation Commission (FWC) is tasked with managing Florida’s marine species. For species which spend the majority of their lives inside state waters— such as spotted sea trout and redfish, the state takes the lead in developing regulations and managing the fishery. For species which spend a large portion of their adult life in federal waters – such as snapper, grouper and mackerel, regulations are developed by the federal management entity – either the Gulf of Mexico or South Atlantic Fishery Management Council, and then shared with the state. Highly migratory species like billfish, tunas and pelagic sharks are regulated through international treaties and agreements in conjunction with federal and state management plans.

For some species that are entirely Florida-based, like spiny lobster, stone crabs, octocorals, permit and bonefish, Florida may have entire management authority over that species, with federal oversight and monitoring. When regulations are consistent between state, federal and international regulators, rebuilding plans for overfished stocks can be properly established, managed and understood by the fishing public. But when regulations vary, overfishing can occur and confusion can make enforcement and management more difficult or impossible. Consistency of management strategies, using the most-protective species targeted by the various regulations, can ensure that bag limits, gear and seasons are set to allow both the species and the industries that rely on them to thrive. For businesses like commercial and charter fishermen, the predictability and consistency of management is extremely important.

Another important fishery issue to Florida and the nation is the accountability of catch allocated to a given sector of the fishing public. Currently there are two recognized sectors - recreational and commercial, each allocated a share of the fish legally and sustainably taken in a given fishing year for a given species. To account for the commercial harvest of several fish species of special interest, like red snapper, gag and red grouper, and other reef fish, individual fishing quotas (IFQ) or “catch shares” have been established based on a fishermen’s historic annual catch. Depending on whom you talk to and how these are applied, individual fishing quotas can be perceived as either a panacea or pariah for fisherman. Concerns usually center on the ability of a few individuals or corporations to monopolize shares and essentially “own” the public’s resource - essentially squeezing the little guys out.

When implemented correctly, however, catch shares can prevent commercial overfishing while allowing sufficient access. If the individual fishing quotas are closely monitored by the federal and state governments both at sea and at the dock, then, when the quota is reached by an individual angler, he or she must end fishing for the season or purchase additional quota from other fishermen. These quotas allow commercial fishermen to choose when and where they fish, depending on good weather and market prices, resulting in fishing activities that are sufficiently protective, profitable, and safe. It also allows an open commercial fishery throughout the year, ensuring fresh seafood for consumers at fish markets and restaurants alike. Under this approach, the commercial sector is closely approaching accountability for its allocation of fish and accurately knowing how much fish is taken in a given fishing season.

Recreational fishermen, on the other hand, do not presently have a quota system to report their catch at the dock, except for certain for-hire charter boat and head boat captains who have individual fishing quotas and vessel-monitoring systems when they take multiple recreational fishermen out on paid trips. Although a recreational angler’s catch (bag limit) per day may seem small in relation to certain commercial fishermen, their numbers and cumulative catch for many species in Florida waters can be quite large and amount to 70 – 80 percent of the entire allowable catch for a given species (like red snapper and gag grouper.) This unaccountable, allowable catch -- when it exceeds the recreational fishing sector’s allocation for a given fishing year – is a major problem in many fisheries that are already overfished or are experiencing overfishing.

The Florida reef tract off the Keys and the southeastern mainland is the most extensive living coral reef system in North American waters, and it is a major driving force for the southeastern Florida economy. The Florida Keys alone attract more than four million domestic and foreign visitors who drive, fly, or cruise each year to what are the most accessible coral reefs in the Caribbean Basin.⁴⁷ One study found that most Florida Keys visitors say they would not return to Monroe County if healthy corals were no longer available.⁴⁸ The coral reefs that stretch northward on the east coast from Miami-Dade to Martin County generate \$3.4 billion in sales and income, and support 360,000 jobs throughout the region.⁴⁹

This natural and economic resource is continually threatened by pollution from sewage and storm water runoff. The pollution increases the duration and frequency of harmful algal blooms. It also affects seagrasses, which provides nursery grounds for many commercial fishery species, particularly offshore reef fish, spiny lobster and shrimp.

Coral reefs are also harmed by acute impacts like anchor damage and boat groundings. The Florida Legislature addressed these problems in 2009 by establishing penalties for boaters who run aground or drop anchor on coral reefs. The law's first phase – educating boaters – is happening now, training on coral damage assessment techniques is just beginning, and fines will be enforced in 2012.

We are only just beginning to understand some of the other threats faced by this rare and fascinating ecosystem. Overharvesting of reef fish and other predators is affecting the reefs, as is ocean warming and acidification, which alters the environment for calcium-carbonate reef builders like coral. Scientists are exploring other chemical and physical stressors, including the effect that extensive touching by divers and snorkelers has on the reefs, as well as sunscreen residue released into the water. Also of concern are increasingly clear linkages between human sewage pollution and coral diseases. Both further research and vigorous protections are needed for this natural – and economically important – Florida treasure.



Snorkeling above soft coral in Bahia Honda State Park, Florida
Credit istock.com

47. Environmental Defense Fund. *Corals and Climate Change: Florida's Natural Treasures at Risk*. p8. http://research.fit.edu/sealevelriselibrary/documents/doc_mgr/449/Florida%20Corals_&_CC_-_EDF_2008.pdf

48. *Id.* At p. 10

49. Johns, G. M., Leeworthy, V. R., Bell, F.W. & Bonn, M. A. (2001) *Socioeconomic Study of Reefs in Southeast Florida*. Final Report. Hazen and Sawyer Environmental Engineers & Scientists; Johns, G. M., Milon, J. W. & Sayers D. (2004) *Socioeconomic Study of Reefs in Martin County, FL*. Final Report. Hazen and Sawyer Environmental Engineers & Scientists



Loggerhead Turtle, Melbourne Beach
Credit Jim Angy

Florida is home to a number of marine plants and animals whose populations are declining and imperiled. State and federal agencies such as the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the Florida Fish and Wildlife Conservation Commission (FWC) have worked together to protect these species and aid their recovery under federal and state law. Both federal and state governments are necessary to adequately protect the state's imperiled species since their rules focus on different aspects of species preservation. Under the federal Endangered Species Act (ESA), potential impacts are weighed against the health of the species throughout its entire range, which may extend beyond the state boundaries. The state focuses on the status of the population within Florida. Populations stabilized nationally might still be declining within Florida, or vice versa, so both the federal and state designations are important for safe-guarding imperiled species.

In September 2010 FWC adopted a new imperiled species management and listing system.⁵⁰ So far, the Commission has proposed to de-list and remove protections for 16 species, with five of those being coastal species, under the new rule.⁵¹ The rule includes a two-year moratorium that will give the FWC time to determine the current status of listed species and work with stakeholders to complete management plans for all the existing state-listed species. In the interim, however, proposals to list additional species as protected are not currently being accepted.

Managing Marine Ecosystems

Florida is home to 41 aquatic preserves (encompassing approximately two million acres,) three of the nation's National Estuarine Research Reserves, and one of the world's largest underwater National Marine Sanctuaries -The Florida Keys and Tortugas National Marine Sanctuary.⁵² All these are managed through the Florida Department of Environmental Protection's Coastal and Aquatic Managed Area (CAMA) Program. In 2011, the Florida Legislature cut \$1 million from CAMA's budget, putting six aquatic preserves and their staffs in jeopardy. The state's aquatic preserves are enormously important. They protect Florida's most sensitive and vulnerable waters, many of which are marine nursery grounds essential to the recreational and commercial fishing industries. The aquatic preserve program also protects fresh water springs, salt marshes, seagrass meadows, mangrove forests, and other special habitats.

Current indications are that Coastal Zone Management grant funds, approved by NOAA, will be utilized to cover the state program's funding deficit and thereby protect the six aquatic preserves previously in jeopardy. The Coalition urges the Governor and Legislature to reinstate Coastal and Aquatic Managed Area funding during the upcoming legislative session so that the critical natural resources that support Florida's economy and environment remain protected.

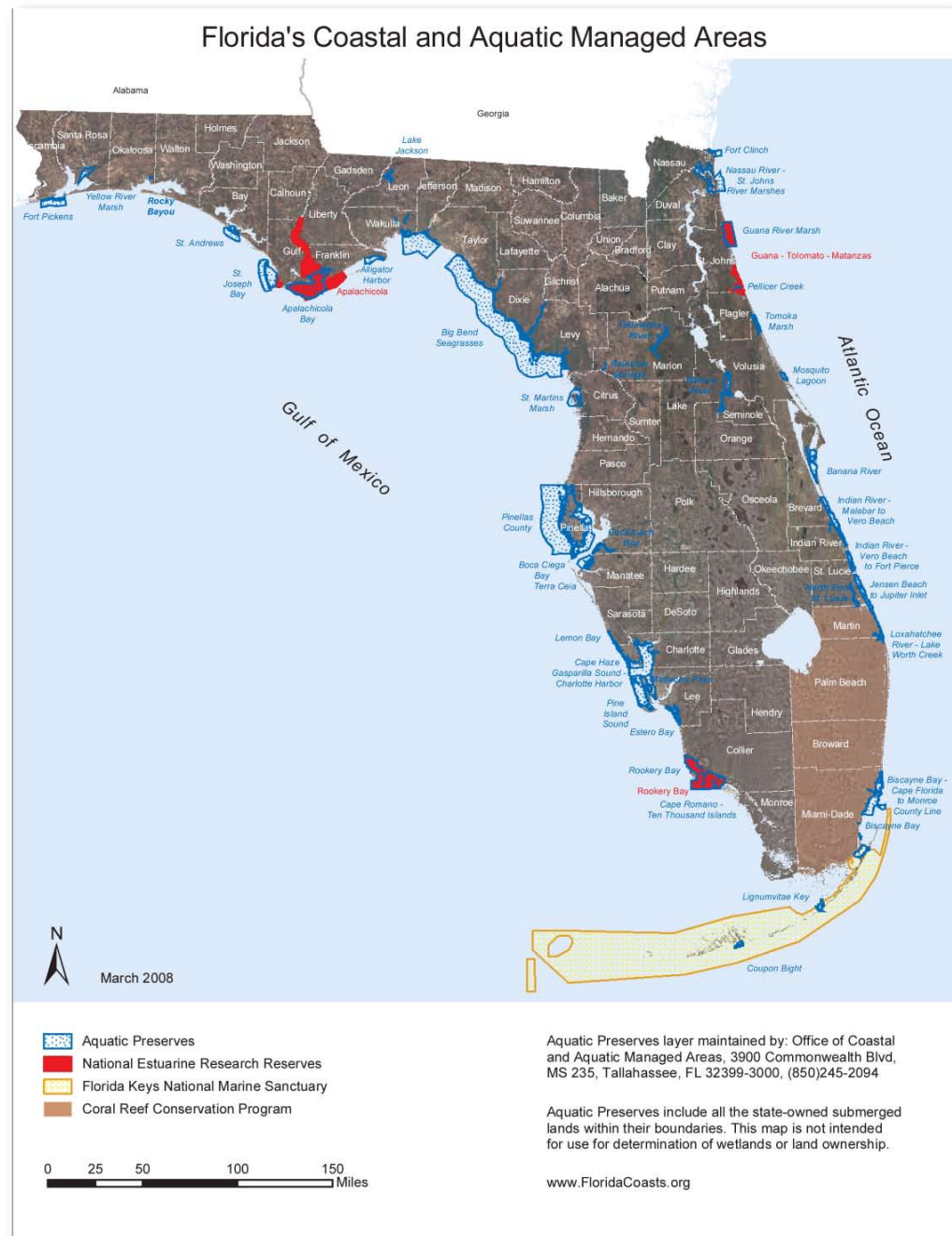
50. Florida Administrative Code 68A-27.007(1). (2011)

51. Florida Fish and Wildlife Conservation Commission. Threatened Species Management System – Listing Recommendations and Criteria . 2011. <http://myfwc.com/wildlifehabitats/imperiled/biological-status/listing-recommendations/>. Johns, G. M., Leeworthy, V. R., Bell, F.W. & Bonn, M. A. (2001) Socioeconomic Study of Reefs in Southeast Florida. Final Report. Hazen and Sawyer Environmental Engineers & Scientists; Johns, G. M., Milon, J. W. & Sayers D. (2004) Socioeconomic Study of Reefs in Martin County, FL. Final Report. Hazen and Sawyer Environmental Engineers & Scientists

52. <http://dep.state.fl.us/coastal/programs/aquatic.htm>

Recommended Actions:

- The FWC should continue to work with both the South Atlantic and Gulf of Mexico Fishery Management Councils and the National Marine Fisheries Service to improve fishery-independent (in the water) and fishery dependent (at the dock) research and data collection for all fishing sectors – commercial, private recreational, and for-hire charter fishing – to ensure accountability of catch in each fishing sector.
- The FWC should continue to ensure that state fishing regulations are consistent with federally managed species plans and regulations.
- The Governor and the Florida Legislature should reinstate CAMA funding for the state's aquatic preserve system so that the critical natural resources that support Florida's economy and environment remain protected.
- The Governor should appoint academic and conservation experts as voting members from Florida to the Gulf of Mexico and South Atlantic Fishery Management Councils, and to the Florida Fish and Wildlife Conservation Commission.
- The state should support research on deep water corals connections to shallow corals and other coastal resources, as needed, to better conserve coral reef habitats, particularly off southeastern mainland Florida and in deep water around the state.
- Additional marine protected areas off Florida should be considered where needed.
- The FWC should continue to work with federal agencies on its imperiled species listing process.
- The DEP should work to increase the awareness and support by local citizen groups and other stakeholders to support aquatic preserves, as is done in the state park system.
- The state should substantially increase funding available for large-scale oyster and coral reef restoration to regain the full suite of ecosystem and economic services provided by this reef habitat.



Florida's Coastal and Aquatic Managed Areas. Image courtesy of the Florida Department of Environmental Protection. www.dep.state.fl.us/coastal/sites/

IV. RESTORING THE QUALITY OF OUR COASTAL WATERS

Besides the estuarine and marine aquatic preserves, Florida has more than 700 springs, the largest concentration of freshwater springs in the world.⁵³ Groundwater from the springs flows into rivers and creeks that flow into and nourish coastal waters. But pollution from runoff, agriculture, and sewage is causing the groundwater flowing from the springs to exhibit increasingly high levels of pollution. Elevated pollution levels are rapidly decreasing water quality in various waters throughout Florida, promoting algae and aquatic weed growth. The enjoyment, economic value, and ecological health of Florida's coastal waters depend upon better pollution containment and treatment from development, industry, and agriculture. Good water quality is absolutely vital to Florida's water-based tourism and recreation, waterfront real estate values, and general economic viability.

Fully 100% of Florida estuaries and coastal waters are now considered impaired, meaning they are currently not meeting state water quality standards.⁵⁴ In addition, Florida's entire coastline, as well as every lake and river in the state, is subject to mercury consumption advisories.⁵⁵ Mercury consumption advisories have been issued for popular fish such as snook, gag grouper, redfish, cobia, spotted sea trout, flounder, pompano, and king mackerel. The state has begun to develop a statewide Mercury Total Maximum Daily Load (TMDL) pollutant limit, but now needs to finalize and create a Basin Management Action Plan to start reducing levels of mercury to levels safe for environmental and human health.

Establish More Effective Limits for Nutrient Pollution

Despite federal, state, and local government regulations, Florida's water quality has steeply declined over the past decade, primarily due to pollution by so-called "nutrients," phosphorus and nitrogen. These flow into our waters from inadequately treated sewage, manure, and fertilizer runoff. In the aquatic environment, they cause algae and vegetation to grow out of control. Toxic algae outbreaks fueled by phosphorus and nitrogen are a public health threat to people and animals; they shut down tourist beaches, fishing areas, freshwater swimming areas, contaminate drinking water supplies, and cause fish kills.

The U.S. Environmental Protection Agency (EPA) directed the Florida Department of Environmental Protection (DEP) to create and adopt numeric water quality standards (specific limits) for nutrient pollution in 1998. More than eleven years later, the state had still failed to do so. Several environmental organizations petitioned the EPA to intervene to prompt the adoption of numeric limits for phosphorus and nitrogen.⁵⁶ To date, the state continues to use an ineffective "narrative" nutrient standard, which fails to identify excess nutrient pollution until an imbalance has manifested itself and the resource has been severely degraded. A numeric standard, on the other hand, allows scientists and officials to proactively identify water bodies which exceed nutrient limits, and the waters can be remediated before serious degradation occurs. Experience shows that preventing pollution is cheaper than cleaning up polluted water bodies later. Numeric nutrient limits are the more economical and effective approach to controlling the very serious problem of nutrient pollution in our waters.

53. <http://dep.state.fl.us/springs/>

54. Florida Department of Environmental Protection. *Integrated Water Quality Assessment for Florida*. 2010 305(b) Report and 303(d) List Update. September 2010. http://www.dep.state.fl.us/water/docs/2010_Integrated_Report.pdf

55. Florida Department of Health. *Your Guide to Eating Fish Caught in Florida*. 2009. <http://www.doh.state.fl.us/floridafishadvice/Final%202009%20Fish%20Brochure.pdf> http://www.dep.state.fl.us/water/docs/2010_Integrated_Report.pdf

56. Environment New Service. *Federal lawsuit to halt toxic algae blooms*. Downloaded October 2011. <http://www.ens-newswire.com/ens/jul2008/2008-07-18-093.html>

After the DEP failed to set numeric nutrient criteria – and even after the EPA allowed more than a year for the state to do so – the EPA went forward and set numeric nutrient criteria for Florida’s inland fresh water bodies. The criteria were based on more than 80,000 samples collected from Florida waters. These criteria were finalized in November 2010, and deferred for 18 months to allow for certain case-by-case exemptions called “site-specific alternative criteria.” Florida’s Attorney General and Agriculture Commissioner sued to prevent the EPA from imposing the numeric nutrient clean water standards.⁵⁷ Additionally, the DEP has put forth its own draft numeric nutrient standards rule, accompanied by a request that the EPA withdraw its finalized freshwater criteria. On November 2, 2011, EPA sent a letter to DEP stating that their “current review of the October 24, 2011 draft rule... leads us to the preliminary conclusion that EPA would be able to approve the draft rule under the CWA.”⁵⁸

However, in contrast to the EPA rule, DEP’s draft rule relies on numeric thresholds, rather than numeric criteria, that are interpreted by an examination of the condition of flora and fauna in the water body at issue. If the causal connection between nutrients and degradation of water quality cannot be statistically demonstrated, the rule requires years of further study before the waterbody is deemed impaired and remedial actions are required. Accordingly, the draft rule does not proactively protect waterbodies other than spring vents and lakes from serious degradation, nor provide numeric limits in upstream waterways to protect downstream water quality. Without changes, the current DEP draft rule is not a suitable surrogate for what the EPA has proposed. On December 8, 2011 the Environmental Regulations Commission adopted DEP’s numeric nutrient standards.

The EPA’s numeric nutrient criteria for coastal waters are to be finalized in November 2012, if the state fails to do so by that date.⁵⁹ The DEP had not originally planned to address coastal and estuarine waters at all in its current draft rule, but has proposed numeric criteria for a few estuaries in South Florida. The numeric nutrient thresholds proposed for Southwest and South Florida estuaries may not support the attainment of state Dissolved Oxygen criteria, adequately protect aquatic endangered species, or prevent degradation of Outstanding Florida Waters. Estuaries not included in the current DEP rule revisions are not required to have numeric nutrient standards until June 30, 2013 for Perdido Bay, Pensacola Bay, St. Andrews Bay and Apalachicola Bay and by June 30, 2015 for all other estuaries – well after the 2012 federal deadline. All of Florida’s estuaries need numeric nutrient criteria set in a timely manner to restore them to their current swimmable/fishable designated use. To fully restore and protect Florida’s estuaries, meaningful criteria for all water bodies is necessary, along with downstream protective values and strong linkages between violations and corrective actions addressing nutrient source control. Whether EPA or DEP criteria are adopted, the DEP will be responsible for compliance and set the process and timeline for meeting the standards. In doing so, the DEP can ensure that any numeric nutrient criteria are practicable and cost feasible.

Since numeric nutrient pollution standards are essential to effectively identifying and addressing our growing pollution problem, the state should be working with the EPA to finalize and implement numeric nutrient criteria for all of Florida’s fresh and estuarine waters in a timely manner to restore water quality. This would entail the DEP implementing the EPA criteria or revising its own proposal to provide similarly effective numeric nutrient criteria for all fresh and estuarine waters in Florida, as well as “downstream protective values” to ensure that upstream waters are regulated in such a manner as to meet downstream standards. The state should also create implementation policies listing which waters routinely exceed numeric limits as “impaired,” and require a Total Maximum Daily load pollution limit and Basin Management Action Plan clean-up strategy to restore each impaired waterbody. In response to the problem of phosphorus- and nitrogen laden runoff, many local governments have tried to implement local measures to address nutrient pollution as well. Fertilizer ordinances aimed at regulating the use of

57. Orlando Sentinel. *Florida sues to block new water quality standard*. December 2010. http://articles.orlandosentinel.com/2010-12-07/news/os-florida-sues-epa-20101207_1_epa-rules-water-quality-standards-clean-water-acthttp://water.epa.gov/lawsregs/rulesregs/florida_index.cfm

58. November 2, 2011 letter from Nancy K. Stoner, Acting Assistant Secretary of EPA to Herschel T. Vinyard, Secretary of DEP.

59. EPA. *Federal Water Quality Standards for the State of Florida*. http://water.epa.gov/lawsregs/rulesregs/florida_index.cfm Institute. 2008. p. 7. <http://noep.mbari.org>

nitrogen-based fertilizers during the rainy season or application too close to waterbodies are two ways to reduce the amount of polluted runoff reaching coastal water bodies. These local governments have acted despite discouragement from state officials to adopt any standards more stringent than the state’s model ordinance. However, the model state ordinance was created as a “floor” to fertilizer regulation – not a ceiling. Modifications to the state’s model ordinance are appropriate in some areas of the state where additional water protection is critical. There have also been several recent failed legislative attempts to preempt local governments’ ability to pass local regulations to protect community waterways. Coastal local governments need state assistance to effectively regulate pollution flowing downstream from areas outside their jurisdictions, and they also need state support for setting more effective regulations to control pollution coming from areas within their own jurisdictions. The state should not preempt local fertilizer ordinances which are more stringent than the state’s model fertilizer ordinance.

The three- to four-million on-site sewage disposal systems in Florida, which leak nutrients into the ground and spur algae outbreaks and noxious aquatic weed growth, also pose serious pollution threats to our coastal waters. There are thousands of individual septic sewage disposal systems in even the most sensitive areas of the Florida Keys and other barrier island systems, and tens of thousands of new systems are permitted in the state every year. The 2010 Legislature passed SB 550, which requires all septic tanks to be inspected every five years – a long-recognized need to ensure appropriate maintenance and treatment. Unfortunately, the provision is under political attack amid claims that it will be too costly. Currently, legislation is being proposed to repeal the statewide inspection requirement. But such inspections are not cost-prohibitive and are absolutely necessary if water quality is to be restored to levels safe for public health. Some lawmakers are also pushing to repeal the state’s ban on “residual spreading” (the land-based spreading of remaining solids in the sewage treatment process.)

Finally, Florida must address the issue of ocean pipe outfalls, which spew partially treated sewage into our recreational marine waters. Although the Florida Legislature established a moratorium on any new outfalls and set a 15-year timeframe for phasing out the six remaining ones in southeast Florida, there were attempts last year to weaken and lengthen these requirements. The southeast Florida ocean outfalls discharge millions of gallons of poorly treated sewage to tide daily. The Legislature and citizens should continue to support the effort to more efficiently treat and reuse this fresh water source, as is done in the majority of the state.

Need for More Effective Non-point Source Pollution Controls

“Non-point” pollution, such as agricultural and storm water runoff, enters waterways from dispersed sources. This pollution has increased dramatically and now represents the largest pollution problem facing the vital coastal waters of the United States.⁶⁰ Florida’s current storm water requirements are not meeting the 80% pollution reduction required in the Florida Administrative Code. In fact, the regulations often require only a 40% reduction of nitrogen – the primary pollutant fouling estuarine waters. The DEP acknowledged this fact, as well as the need for updated regulations, in 2007 when it began developing a statewide storm water rule. The state has failed to fully implement existing programs such as the Total Maximum Daily Load limits, Basin Management Action Plans, and Minimum Flows and Levels – all of which provide mechanisms to address non-point pollution and maintain healthy ecosystems. Funding and supporting the DEP to fully implement such programs in a timely fashion is absolutely essential to reverse the deterioration of Florida’s waters.

60. Ecological Society of America. “Nutrient Pollution of Coastal Rivers, Bays, and Seas.” *Issues in Ecology*, Number 7, Fall 2000.

The statewide storm water rule was to serve as a baseline standard to provide the minimum treatment requirements for all new development throughout the state, while allowing regional or local governments to enact more stringent standards. However, the DEP is currently several years behind in pursuing legislative authorization and finalizing such regulations, and to date there has been no legislation passed on the issue. The DEP needs to resume rulemaking to revise the rule to require that storm water systems capture and remove at least 80% of the nitrogen and phosphorus they generate. Supporting the funding, finalization, and timely implementation of updated storm water requirements, while allowing regional and local governments to enact supplemental requirements where necessary, is imperative to curbing the rampant storm water pollution that is degrading our water quality.

The DEP should also not lower the “designated use” of swimmable and fishable water bodies to “limited recreation” (i.e., not swimmable) uses. This simply lowers the water quality standards for such water bodies by lowering our goals for them, and allowing non-compliant water bodies to be categorized as compliant, even though water quality has not actually improved. Lowering the designated uses and standards for upstream water bodies, such as Class III canals, will make it more difficult and expensive to meet swimmable and fishable water quality standards downstream in the rivers, bays, and beaches they flow into. It will also inhibit properly controlling pollution at its source. This will result in the transfer of expenses from the private to the public sectors, as well as from inland communities to coastal communities - since coastal communities will have to pay to intercept and clean up pollution flowing from upstream at taxpayers’ expense. These designated-use rule changes need to be revisited and revised to tighten eligibility requirements and their application to only those water bodies where it is truly justified to downgrade such standards. They should also not be implemented until new numeric nutrient criteria for estuaries are in place, in order to ensure that they do not further compromise our ability to meet water quality standards in our coastal waterways.

Recommended Actions:

- The Florida Department of Environmental Protection should work with the U.S. Environmental Protection Agency to establish strong numeric nutrient pollution standards to protect and improve the health of Florida’s water bodies, including coastal and estuarine ecosystems.
- The Legislature should encourage, not prohibit, local “smart fertilizer” ordinances that regulate the use of nitrogen- based fertilizers.
- The law requiring all septic tanks to be inspected every five years should be implemented in a timely fashion and not weakened. Solids from community sewage treatment systems should be dewatered and detoxified and sold as fertilizer outside of major spring and coastal watersheds (both surface and groundwater) or properly disposed of in Class III landfills.
- The state should fund and fully support the DEP’s implementation of Total Maximum Daily Load limits, Basin Management Action Plans, and Minimum Flows and Levels, all which provide vital mechanisms for addressing non-point sources of pollution that impair Florida’s waters.
- The DEP and the Legislature should work with local governments in southeast Florida and other coastal areas to meet timeframes and standards for advanced wastewater treatment and reuse, so that the harmful ocean waste water discharge can be eliminated.
- The DEP should not lower the “designated use” of swimmable and fishable water bodies to “limited recreation” (i.e. not swimmable) use.
- The Legislature should support finalization and timely implementation of updated, more effective storm water requirements while allowing regional or local governmental entities to enact supplemental requirements where necessary.



SE Florida Ocean Outfall Pipe
Credit Dr. Brian Lapointe,
Harbor Branch Oceanographic Institute
Florida Atlantic University

V. ACHIEVING OUR OCEAN PRIORITIES – DEVELOPING THE TOOLS TO PLAN FOR A HEALTHY FUTURE FOR OUR COASTS AND OCEANS

Comprehensive Ocean Planning

As a state with the second-longest coastline and territorial seas in the country and an economy that depends heavily on coastal and ocean resources, it is imperative that Florida protect and sustain those resources, while planning for new coastal and ocean uses.

Florida should develop a comprehensive, science- and ecosystem-based planning process that: 1) articulates a long-term vision to protect the state’s coastal and marine environments; 2) contains clearly defined goals; 3) addresses environmental, economic and social issues; and 4) is developed in consultation with stakeholders and the general public. This process should recognize the strong land-sea connection, since so much of what happens on land affects the ocean, and what happens in the ocean affects the land. The DEP should take the lead in this planning, with input from other entities, including the FWC. The Board of Trustees, which is responsible for the state’s publicly-owned sovereign submerged lands, should play a key role in plan adoption and implementation.

Such planning will help Florida communities preserve natural resources, limit and manage conflicting marine uses, and coordinate governmental oversight.

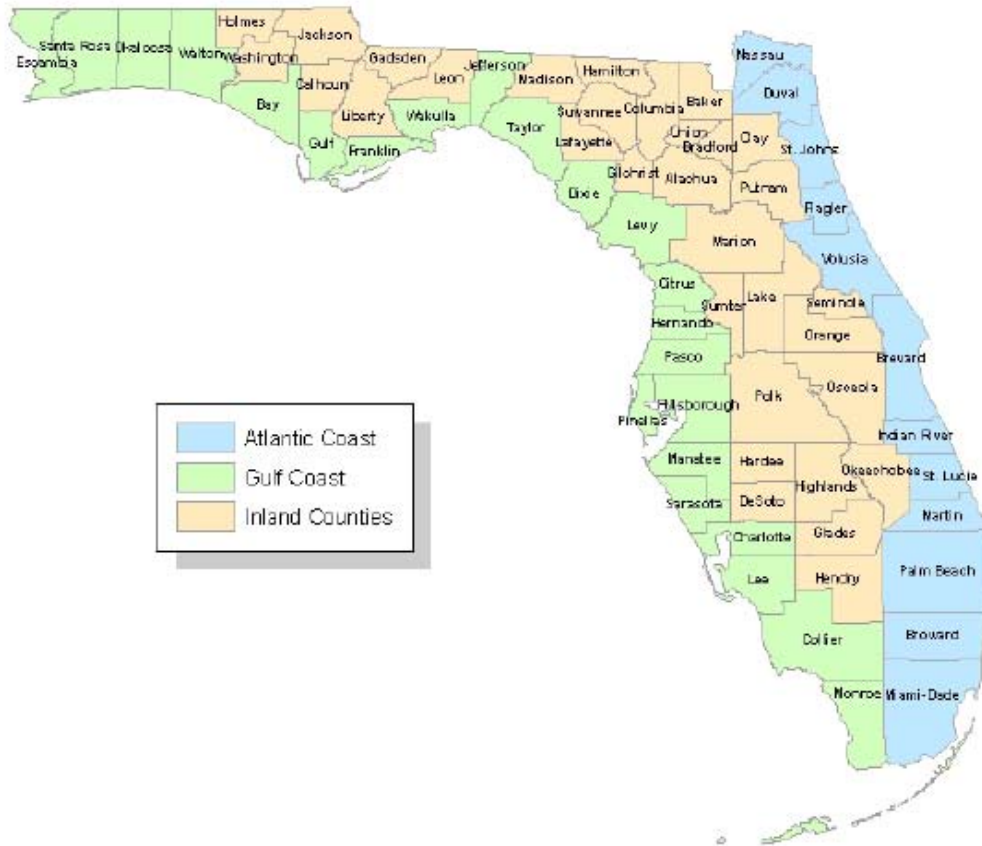
Recommended Actions:

- The DEP and the FWC should utilize existing information databases, including geographic information systems, for comprehensive ocean planning. The agencies should use the information to make maps accessible to all governmental agencies and to the public.
- The DEP and the FWC should establish a science- and ecosystem-based plan to guide where various marine uses may occur. The goal should be to protect ecological functions, prevent resource degradation, avoid conflicts among competing uses and provide regulatory certainty for all who use marine resources.
- Stakeholders and the general public should be involved in developing a Plan.

CONCLUSION

Florida’s natural resources define the state while creating a place people want to live, work, play, and visit. Florida must be a leader in natural resource protection and management in the United States. This is imperative in order to protect our environment, economy and way of life.

In difficult economic times, we must focus on the strengths and assets Florida currently possesses; those are the coastal and marine environments that drive our economy, support our citizens, and entice tourists and new business opportunities from around the world. The recommended actions detailed in this *Blueprint Update* provide an excellent place to begin protecting and preserving the saltier and sandier sides of Florida. The Florida Coastal and Ocean Coalition looks forward to the opportunities the coming years will present and we look forward to working with Florida’s leaders to implement the recommendations suggested throughout this report.



2006 Florida Economy Total Regional Values and Contribution to State Economy

	Establishments	% of FL Total	Employment	% of FL Total
Florida Total	560,589	100.0%	7,632,992	100.0%
Shoreline Total	445,634	79.5%	5,782,478	75.8%
Atlantic Shoreline	273,503	48.8%	3,425,730	44.9%
Gulf Shoreline	172,131	30.7%	2,356,748	30.9%
	Wages	% of FL Total	GDP	% of FL Total
Florida Total	\$291,926,053,544	100.0%	\$713,504,000,000	100.0%
Shoreline Total	\$226,403,461,926	77.6%	\$561,752,310,896	78.7%
Atlantic Shoreline	\$139,954,527,968	47.9%	\$352,075,624,974	49.3%
Gulf Shoreline	\$86,448,933,958	29.6%	\$209,676,685,922	29.4%

- Florida's coastal (shoreline counties) contributed almost \$562B in direct revenue, 79% of Florida's economy.
- Shoreline counties contributed over 75% of Florida's GDP, wages, employment and establishments on only 56% of Florida's total land area.

Source: National Ocean Economics Program. *Phase II: Florida's Ocean and Coastal Economies Report*. Monterey Bay Aquarium Research Institute. 2008.

FLORIDA'S COASTAL AND OCEAN FUTURE:

An Updated Blueprint for Economic and Environmental Leadership

FLORIDA COASTAL AND OCEAN COALITION

The Conservancy of Southwest Florida
www.conservancy.org

Sea Turtle Conservancy
www.conserveturtles.org

Natural Resources Defense Council (NRDC)
www.nrdc.org

Reef Relief
www.reefrelief.org

1000 Friends of Florida
www.1000fof.org

Surfrider Foundation
www.surfrider.org

Gulf Restoration Network (GRN)
www.healthygulf.org

Indian Riverkeeper
www.indianriverkeeper.org

The Nature Conservancy
www.nature.org

