The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environmental Preservation and Conservation

BILL:	SB 232
INTRODUCER:	Senators Book and Farmer
SUBJECT:	Coral Reefs
DATE:	November 3, 2017
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Mitchell	Rogers	EP	**Pre-meeting**
2.			AEN	
3.			AP	

I. Summary:

SB 232 creates the Southeast Florida Coral Reef Ecosystem Conservation Area. The conservation area consists of the sovereignty submerged lands and state waters offshore of Broward, Martin, Miami-Dade, and Palm Beach Counties from the St. Lucie Inlet to the northern boundary of the Biscayne National Park.

II. Present Situation:

Coral Reefs

Coral reefs are valuable natural resources. They protect coastlines by reducing wave energy from storms and hurricanes. They serve as a source of food and shelter and provide critical habitat for over 6,000 species, including commercially important fisheries. Many medicines, as well as other health and beauty products, are derived from marine plants, algae, and animals found on coral reefs.[1] Coral reefs in southeast Florida support a rich and diverse assemblage of stony corals, octocorals, macroalgae, sponges, and fishes. These ecological communities run along the coast from the northern border of Biscayne National Park in Miami-Dade County north to the St. Lucie Inlet in Martin County.[2]

People use coral reefs as a resource for recreation, education, scientific research, and public inspiration. Millions of tourists and local residents enjoy scuba diving, snorkeling, and fishing on Florida's coral reefs. These activities provide a source of income for the state and its coastal communities. The natural coral reefs in Martin, Palm Beach, Broward, and Miami-Dade counties

[1] The Florida Department of Environmental Protection (DEP), *Coral Reef Conservation Program*, *available at* http://www.dep.state.fl.us/coastal/programs/coral/ (last visited October 11, 2017); DEP, *Coral Reef Conservation Program 2011-2016 Strategic Plan*, 3 (July 2011), *available at* http://www.dep.state.fl.us/coastal/programs/coral/pub/CRCP_Strategic_Plan_2011-2016.pdf (last visited October 4, 2017).
[2] *Id*.

generate an estimated $3.4 billion in sales and income and support 36,000 jobs in the region each year.[3]

Coral reefs are vulnerable, however, to harmful environmental changes, particularly those resulting from human activities. Coral cover on many Caribbean reefs has declined up to 80 percent over the past three decades. Southeast Florida's reefs, which are a part of the greater Caribbean/Western Atlantic reef province, are being monitored for diseases, bleaching, and other problems associated with human activities. Monitoring data from the Florida Keys revealed a 44 percent decline in coral cover from 1996-2005.[4]

The United States Coral Reef Task Force identified eight specific and widely accepted threats to coral reefs as being particularly important:

- Pollution, including eutrophication and sedimentation from intensive land use, chemical loading, oil and chemical spills, marine debris, and invasive species;
- Overfishing and over-exploitation of coral reef species for recreational and commercial purposes and the resulting collateral damage and degradation to habitats and ecosystems;
- Destructive fishing practices, such as cyanide and dynamite fishing that can destroy large sections of reef;
- Dredging and shoreline modification in connection with coastal navigation or development;
- Vessel groundings and anchoring that directly destroy corals and reef framework;
- Disease outbreaks that are increasing in frequency and are affecting a greater diversity of coral reef species; and
- Global climate change and associated impacts including increased coral bleaching, mortality, storm frequency, and sea level rise.[5]

Corals are highly sensitive to even small temperature changes and can react through bleaching, reduced growth rates, reduced reproduction, increased vulnerability to diseases, and die-offs. Corals can tolerate only a relatively narrow temperature range and prefer water between 73-84 degrees. Water temperatures over 86 degrees or under 64 degrees are stressful and are eventually fatal for coral. In addition, corals have a mutually beneficial, or symbiotic, relationship with a type of algae known as zooxanthellae. Zooxanthellae live inside the coral and provide the coral with energy derived from photosynthesis. In turn, the coral provides the algae with shelter. When the water gets too warm and the coral becomes stressed, they can expel their zooxanthellae which results in coral bleaching. Although the colorless coral is still alive, it will eventually die from starvation if the zooxanthellae do not return.[6]

The Florida Reef Tract which extends from Soldier Key, located in Biscayne Bay, to the Tortugas Banks possesses coral formations very similar to those found in the Bahamas and Caribbean Sea. The tract is nearly 150 miles long and about 4 miles wide extending to the edge

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[3] *Id.*
[4] DEP, *Threats to Southeast Florida Coral Reefs, available at* http://www.dep.state.fl.us/coastal/programs/coral/threats.htm (last visited October 3, 2017).
[5] U.S. Coral Reef Task Force, *The National Action Plan to Conserve Coral*, 3, *available at* http://www.coralreef.gov/about/CRTFAxnPlan9.pdf (last visited October 12, 2017).
[6] Florida Fish and Wildlife Conservation Commission (FWC), *Long Term Temperature Monitoring*, http://myfwc.com/research/habitat/coral/cremp/cremp-temp-monitoring/ (last visited October 10, 2017).

of the Florida Straits.[7] Massive, region-wide bleaching events have become more common on the Florida Reef Tract. Since 1987, six extensive coral bleaching events have affected the entire tract. Substantial mass coral mortality occurred during the global bleaching events of 1997/1998 and 2014/2015. Corals at the northern end of their range, such as those found on the Florida Reef Tract, are also vulnerable to cold winter temperatures. A severe cold snap in 2010 resulted in high mortality of certain coral species on shallow-water patch reefs throughout the Florida Reef Tract.[8]

Florida Coral Reef Programs

The Coral Reef Conservation Program (CRCP) within the Florida Coastal Office (FCO) of the Florida Department of Environmental Protection (DEP) oversees several programs and initiatives to coordinate research and monitoring, develop management strategies, and promote partnerships to protect the coral reefs, hard bottom communities, and associated reef resources of southeast Florida.[9] The CRCP implements and coordinates the following:

- *The Southeast Florida Action Network* – This reporting and response system is designed to improve the protection and management of southeast Florida's coral reefs by enhancing marine debris clean-up efforts, increasing response to vessel groundings and anchor damage, and providing early detection of potentially harmful biological disturbances.[10]
- *The Southeast Florida Coral Reef Initiative (SEFCRI)* – This program identifies and implements priority actions needed to reduce key threats to coral reef resources in southeast Florida through a local action strategy for collaborative action among government and non-governmental partners.[11] Groups associated with SEFCRI include:
    - SEFCRI technical advisory committees which may be convened to address specific issues that need special attention or expertise.[12]
    - Our Florida Reefs Community Working Groups, comprised of local reef users, scientists, and representatives from nongovernmental organizations and local, state, and federal agencies. Two groups meet once a month to learn about Southeast Florida's living marine resources, and develop a prioritized list of recommendations that can become part of a comprehensive management strategy to ensure healthy coral reefs in the future. These groups are hosted by SEFCRI.[13]
- *Southeast Florida's Marine Debris Reporting and Removal Program* – Through a partnership with DEP, the Florida Fish and Wildlife Conservation Commission (FWC) and the Palm Beach County Reef Rescue, this program encourages local divers and dive shops to report marine debris. The partnership organizes reef clean-up events to remove the debris.[14]

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[7] The National Oceanic and Atmospheric Administration, *Coral Reef Information System: Florida*, https://www.coris.noaa.gov/portals/florida.html (last visited October 9, 2017).
[8] *Id.*
[9] DEP, *Coral Reef Conservation Program*, http://www.dep.state.fl.us/coastal/programs/coral/ (last visited October 11, 2017).
[10] DEP, *Southeast Florida Action Network*, http://www.dep.state.fl.us/coastal/programs/coral/seafan.htm (last visited October 10, 2017).
[11] Southeast Florida Coral Reef Initiative (SEFCRI), *What is SEFCRI?*, http://southeastfloridareefs.net/about-us/what-is-sefcri/ (last visited October 9, 2017).
[12] Southeast Florida Coral Reef Initiative, *Team Charter* (Sept. 2012) *available at* https://www.dep.state.fl.us/coastal/programs/coral/documents/SEFCRI_Charter.pdf (last visited October 12, 2017).
[13] Our Florida Reefs, *About*, http://ourfloridareefs.org/about/ (last visited October 11, 2017).
[14] DEP, *Southeast Florida's Marine Debris Reporting and Removal Program*, http://www.dep.state.fl.us/coastal/programs/coral/debris1.htm (last visited October 10, 2017).

- *The Reef Injury Prevention and Response Program* – This program leads the response to, and management of, coral reef and hard bottom injuries resulting from vessel impacts such as grounding, anchoring, and cable drag events.[15] Section 403.93345, F.S., otherwise known as the Florida Coral Reef Protection Act, requires responsible parties to notify DEP when they run their vessel aground, strike, or otherwise damage coral reefs. The responsible party must remove the vessel and work with DEP to assess the damage and restore the reef.[16] DEP may require the responsible party to pay the cost of assessment and restoration, as well as pay a fine.[17]
- *The Florida Reef Resilience Program (FRRP)* – The FRRP addresses climate change and coral reefs. Reef managers, scientists, conservation organizations and reef users across South Florida have developed a *Climate Change Action Plan for the Florida Reef System (2010-2015)* (Action Plan). The goals of the Action Plan are to increase coral reef resilience to climate change impacts through active management of local reef impacts; enhance communication and awareness of climate change impacts on coral reefs and reef users; and conduct targeted research to increase understanding of climate change impacts and develop new intervention measures.[18]
- *The Southeast Marine Event Response Program* – This program responds to potentially harmful biological disturbances along the northern third of the Florida Reef Tract from the northern border of Biscayne National Park in Miami-Dade County to the St. Lucie Inlet in Martin County. Upon notification of an event such as harmful algal blooms, fish kills, coral bleaching, or diseases, DEP coordinates with regional partners to schedule initial site assessments, implement event response protocols, and analyze samples, where possible and appropriate.[19]
- *The Southeast Florida Fisheries-Independent Monitoring Program* – This program builds partnerships and obtains funding to implement fisheries-independent monitoring.[20] Fisheries-independent monitoring is a system-wide approach that evaluates marine communities and the populations of fish and invertebrate species that comprise them. Fisheries-independent monitoring also investigates habitat conditions for purposes of learning more about system-wide trends.[21]

FWC also plays a role in protecting Florida's coral reefs. Through the Coral Reef Evaluation and Monitoring Project (CREMP), FWC has monitored the condition of coral reef and hard bottom habitats annually throughout the Florida Keys since 1996, southeast Florida since 2003, and the

[15] DEP, *Reef Injury Prevention and Response Program*, http://www.dep.state.fl.us/coastal/programs/coral/ripr.htm (last visited October 12, 2017).
[16] Section 403.93345(5), F.S.
[17] Section 403.93345(6), (7), and (8), F.S.
[18] DEP, *Climate Change and Coral Reefs*, http://www.dep.state.fl.us/coastal/programs/coral/climate_change.htm (last visited October 9, 2017).
[19] DEP, *Southeast Marine Event Response Program*, http://www.dep.state.fl.us/coastal/programs/coral/event_response.htm (last visited October 10, 2017).
[20] DEP, *Southeast Florida Fisheries-Independent Monitoring Program*, http://www.dep.state.fl.us/coastal/programs/coral/fisheries-independent.htm (last visited October 11, 2017).
[21] Sarasota County Wateratlas, *Fisheries Independent Monitoring*, http://www.sarasota.wateratlas.usf.edu/shared/learnmore.asp?toolsection=lm_fishindep (last visited October 11, 2017).

Dry Tortugas since 2004. The CREMP has documented the temporal changes that have occurred in recent years.[22]

The Southeast Florida Coastal Ocean Task Force (COTF) was established in 2012 through enabling resolutions of the Boards of County Commissioners of Miami-Dade, Broward, Palm Beach, and Martin Counties.[23] The Task Force was charged with providing recommendations for coastal ocean resources and conservation priorities and strategies. The membership of the COTF included county commissioners and four city commissioners from Southeast Florida; representatives from DEP, FWC, and the National Oceanic and Atmospheric Administration; and stakeholders representing recreational fishers, commercial ports, the dive charter industry, and the marine industry. The final report was issued in 2015 and made numerous recommendations for potential adoption by the affected cities and counties.[24]

The Board of Trustees of the Internal Improvement Trust Fund

The Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) holds state lands in trust for the use and benefit of the people of Florida.[25] The Board of Trustees consists of the Governor, Attorney General, Chief Financial Officer, and Commissioner of Agriculture.[26] This body may acquire, sell, transfer, and administer state lands in a manner consistent with chs. 253 and 259, F.S.[27]

The Board of Trustees authorizes several agencies to manage state lands including the Department of Agriculture and Consumer Services, FWC, the Department of State, and DEP through the FCO and the Florida Park Service. Other entities may also manage state land, subject to approval of the Board of Trustees. These agencies and other entities hold a property interest in the land in the form of a management agreement, lease, or other property instrument.[28]

State agencies wishing to manage conservation lands[29] must develop land management plans that DEP and the Board of Trustees must review and approve or disapprove. These land management plans must meet several criteria including identifying key management activities, land management practices, cost estimates, proposed public uses, and short-term and long-term goals.[30] Agencies must update land management plans every ten years, and regional management review teams evaluate whether agencies are complying with their land management plans.[31]

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[22] FWC, *Coral Reef Evaluation and Monitoring Project (CREMP)*, http://myfwc.com/research/habitat/coral/cremp/ (last visited October 11, 2017).
[23] Southeast Florida Coastal Ocean Task Force, *Final Recommendations Report* (2015), *available at* http://205.166.161.204/docs/2016/CCCM/20161206_525/23351_Exhibit%201%20-%20COTF%20Report.pdf (last visited October 10, 2017).
[24] *Id*.
[25] Section 253.001, F.S.
[26] Section 253.02(1), F.S.
[27] *Id*.
[28] Section 253.034(4), F.S.
[29] "Conservation lands" are lands that are currently managed for conservation, outdoor resource-based recreation, or archaeological or historic preservation, except those lands that were acquired solely to facilitate the acquisition of other conservation lands; s. 253.034(2)(c), F.S.
[30] Section 253.034(5), F.S.; Fla. Admin. Code R. 18-2.021.
[31] *Id.*; s. 259.036, F.S.

The Board of Trustees governs sovereignty submerged lands[32] by the criteria set forth in ch. 18-21 of the Florida Administrative Code. These rules include ecological preservation requirements, limitations on the preemption of sovereign submerged lands, riparian rights, dock and pier requirements, and forms of authorization to use sovereign submerged lands.[33]

Aquatic preserves are exceptional areas of submerged lands. Aquatic preserves and their associated waters are set aside to be maintained essentially in their natural or existing condition.[34] Aquatic preserves consist only of land or water bottoms owned by the state, lands or water bottoms owned by other governmental agencies as specifically authorized for inclusion, and private lands leased by the Board of Trustees.[35]

The Board of Trustees may establish aquatic preserves after public notice and a public hearing in the area where the proposed preserve will be located.[36] The Legislature must either confirm or deny establishment of the aquatic preserve.[37] Except for private lands leased by the Board of Trustees, only the Legislature may withdraw an area from an aquatic preserve designation.[38]

Under the direction of the Board of Trustees, the FCO manages forty-one aquatic preserves, encompassing approximately 2.2 million acres.[39] The Legislature authorized the Board of Trustees to adopt rules to regulate human activities within aquatic preserves so long as such rules do not unreasonably interfere with lawful and traditional public uses of an aquatic preserve, such as sport and commercial fishing, boating, and swimming.[40]

III. Effect of Proposed Changes:

SB 232 creates the Southeast Florida Coral Reef Ecosystem Conservation Area. The conservation area consists of the sovereignty submerged lands and state waters offshore of Broward, Martin, Miami-Dade, and Palm Beach Counties from St. Lucie Inlet to the northern boundary of the Biscayne National Park.

The bill provides an effective date of July 1, 2018.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

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[32] "Sovereignty submerged lands" are those lands including, but not limited to, tidal lands, islands, sand bars, shallow banks, and lands waterward of the ordinary or mean high water line, beneath navigable fresh water or beneath tidally-influenced waters to which the State of Florida acquired title on March 3, 1845, by virtue of statehood, and which have not been heretofore conveyed or alienated; Fla. Admin. Code R. 18-21.003(61).
[33] Fla. Admin. Code R. 18-21.004 and 18-21.005.
[34] Section 258.37(1), F.S.
[35] Section 258.40(1), F.S.
[36] Sections 258.41(1) and (2), F.S.
[37] Section 258.41(1), F.S.
[38] Section 258.41(6), F.S.
[39] DEP, *Florida's Aquatic Preserves*, http://www.dep.state.fl.us/coastal/programs/aquatic.htm (last visited October 12, 2017).
[40] Section 258.43(1), F.S. *See also* Fla. Admin. Code Chs. 18-18, 18-20, and 18-23.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill creates an undesignated section of law.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.