

**HOUSE OF REPRESENTATIVES  
FINAL BILL ANALYSIS**

<b>BILL #:</b>	HB 53	<b>FINAL HOUSE FLOOR ACTION:</b>	
<b>SUBJECT/SHORT TITLE</b>	Coral Reefs	107	Y's 0 N's
<b>SPONSOR(S):</b>	Jacobs and others	<b>GOVERNOR'S ACTION:</b>	Approved
<b>COMPANION BILLS:</b>	SB 232		

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**SUMMARY ANALYSIS**

HB 53 passed the House on January 25, 2018, and subsequently passed the Senate on February 7, 2018.

Coral reefs in southeast Florida support a rich and diverse assemblage of stony corals, octocorals, macroalgae, sponges, and fishes. These ecological communities run parallel along the coast from the northern border of Biscayne National Park in Miami-Dade County north to the St. Lucie Inlet in Martin County. 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 important commercial fisheries. Further, 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 the coral reefs.

Coral reefs are vulnerable to harmful environmental changes, particularly those resulting from human activities. Globally, 10 percent of all coral reefs are degraded beyond recovery and 30 percent are in critical condition and may die within 10 to 20 years, particularly those near human populations.

The bill establishes the Southeast Florida Coral Reef Ecosystem Conservation Area (conservation area). The conservation area includes the sovereign submerged lands and state waters offshore of Broward, Martin, Miami-Dade, and Palm Beach Counties from the St. Lucie Inlet in the north to the northern boundary of the Biscayne National Park in the south.

The bill does not appear to have a fiscal impact on state or local governments.

The bill was approved by the Governor on March 19, 2018, ch. 2018-30, L.O.F., and will become effective on July 1, 2018.

## I. SUBSTANTIVE INFORMATION

### A. EFFECT OF CHANGES:

#### Present Situation

##### Coral Reefs

Coral reefs in southeast Florida support a rich and diverse assemblage of stony corals, octocorals, macroalgae, sponges, and fishes. These ecological communities run parallel along the coast from the northern border of Biscayne National Park in Miami-Dade County north to the St. Lucie Inlet in Martin County. 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.<sup>1</sup>

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.

Unfortunately, coral reefs are vulnerable to harmful environmental changes, particularly those resulting from human activities. Globally, 10 percent of all coral reefs are degraded beyond recovery and 30 percent are in critical condition and may die within 10 to 20 years, particularly those near human populations.<sup>2</sup>

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

- Pollution, including eutrophication and sedimentation from intensive land use, chemical loading, oil and chemical spills, marine debris, and invasive nonnative species;
- Overfishing and over-exploitation of coral reef species for recreational and commercial purposes, and the collateral damage and degradation to habitats and ecosystems from fishing activities;
- 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.<sup>3</sup>

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.

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<sup>1</sup> Department of Environmental Protection (DEP), *Coral Reef Conservation Program*, <http://www.dep.state.fl.us/coastal/programs/coral/> (last visited March 1, 2018); *Coral Reef Conservation Program 2011-2016 Strategic Plan*, (July 2011), p. 3, available at: [http://www.dep.state.fl.us/coastal/programs/coral/pub/CRCP\\_Strategic\\_Plan\\_2011-2016.pdf](http://www.dep.state.fl.us/coastal/programs/coral/pub/CRCP_Strategic_Plan_2011-2016.pdf) (last visited March 1, 2018).

<sup>2</sup> U.S. Coral Reef Task Force, *The National Action Plan to Conserve Coral*, p. 3, available at: <http://www.coralreef.gov/about/CRTFAxnPlan9.pdf> (last visited March 1, 2018).

<sup>3</sup> *Id.*

Water temperatures over 86 degrees or under 64 degrees are stressful and are eventually fatal for coral. Corals have a mutually beneficial or symbiotic relationship with a type of algae known as zooxanthellae. Zooxanthellae live inside the coral and provide them with energy derived from photosynthesis. The coral provides the algae with shelter. When the water gets too warm and the coral becomes stressed, they can expel their zooxanthellae, causing bleaching. Although the coral is still alive, just colorless, they will eventually die from starvation if the zooxanthellae do not return.<sup>4</sup>

Recently, 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 Florida Reef 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.<sup>5</sup>

### Coral Reef Conservation Program

The Coral Reef Conservation Program (CRCP) within the Florida Coastal Office of the 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.<sup>6</sup> The CRCP implements and coordinates the following:

- *The Southeast Florida Action Network* – This reporting and response system improves 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.<sup>7</sup>
- *The Southeast Florida Coral Reef Initiative (SEFCRI)* – This program identifies and implements priority action needed to reduce key threats to coral reef resources in southeast Florida using a local action strategy for collaborative action among government and non-governmental partners.<sup>8</sup>
- *The 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.<sup>9</sup>
- *The Reef Injury Prevention and Response Program* – This program leads response to, and management of, coral reef and hard bottom injuries resulting from vessel impacts such as grounding, anchoring, and cable drag events.<sup>10</sup> 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.<sup>11</sup> DEP may require the responsible party to pay the cost of assessment and restoration, as well as pay a fine.<sup>12</sup>

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<sup>4</sup> FWC, *Long Term Temperature Monitoring*, <http://myfwc.com/research/habitat/coral/cremp/cremp-temp-monitoring/> (last visited March 1, 2018).

<sup>5</sup> *Id.*

<sup>6</sup> DEP, *Coral Reef Conservation Program*, <http://www.dep.state.fl.us/coastal/programs/coral/> (last visited March 1, 2018).

<sup>7</sup> DEP, *Southeast Florida Action Network*, <https://floridadep.gov/fco/coral/content/seafan> (last visited March 1, 2018).

<sup>8</sup> SEFCRI, *What is SEFCRI?*, <http://southeastfloridareefs.net/about-us/what-is-sefcri/> (last visited March 1, 2018).

<sup>9</sup> DEP, *Southeast Florida's Marine Debris Reporting and Removal Program*, <https://floridadep.gov/fco/coral/content/southeast-floridas-marine-debris-reporting-and-removal-program> (last visited March 1, 2018).

<sup>10</sup> DEP, *Reef Injury Prevention and Response Program*, <https://floridadep.gov/fco/coral/content/reef-injury-prevention-and-response-program> (last visited March 1, 2018).

<sup>11</sup> Section 403.93345(5), F.S.

<sup>12</sup> Sections 403.93345(6), (7), and (8), F.S.

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 Dry Tortugas since 2004. The CREMP was able to document the temporal changes that occurred in recent years.<sup>13</sup>

### Coral Reef Disease Water Quality Monitoring

During the 2017 session, DEP received \$1,000,000 in nonrecurring funds for the Coral Reef Disease Water Quality Monitoring Program.<sup>14</sup> The intended use of the funds included high resolution monthly water quality sampling throughout the northern Florida Reef Tract; the purchase, installation, and maintenance of Land/Ocean Biogeochemical Observatories, offshore salinity and temperature sensors, acoustic fish stations; laboratory analyses; data storage and processing; reporting and scientific expertise; coral tissue sampling; regular report writing; and the creation of a public outreach and education program.<sup>15</sup> The recommendations from the Our Florida Reefs program and the Southeast Florida Intergovernmental Coastal Ocean Task Force are the basis for these activities.<sup>16</sup>

### **Effect of the Bill**

The bill establishes the Southeast Florida Coral Reef Ecosystem Conservation Area (conservation area). The conservation area includes the sovereign submerged lands<sup>17</sup> and state waters<sup>18</sup> offshore of Broward, Martin, Miami-Dade, and Palm Beach Counties from St. Lucie Inlet in the north to the northern boundary of the Biscayne National Park in the south.<sup>19</sup>

## **II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT**

### **A. FISCAL IMPACT ON STATE GOVERNMENT:**

#### **1. Revenues:**

None.

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<sup>13</sup> FWC, *Coral Reef Evaluation and Monitoring Project (CREMP)*, <http://myfwc.com/research/habitat/coral/cremp/> (last visited March 1, 2018).

<sup>14</sup> Chapter 2017-70, specific appropriation 1708, Laws of Florida.

<sup>15</sup> Second Revised Meeting Packet Part 4 & 5, p. 128, Agriculture and Natural Resources Appropriations Subcommittee, March 21, 2017, available at:

<http://www.myfloridahouse.gov/Sections/Documents/loadoc.aspx?PublicationType=Committees&CommitteeId=2893&Session=2017&DocumentType=Meeting%20Packets&FileName=anr%203-21-17%202nd%20REVISED.pdf>.

<sup>16</sup> *Id.*; Our Florida Reefs, *Recommended Management Actions*, <http://ourfloridareefs.org/rmacomment/> (last visited March 1, 2018); Broward County, *Southeast Florida Intergovernmental Coastal Ocean Task Force Final Recommendation Report*, [http://cragenda.broward.org/docs/2016/CCCM/20161206\\_525/23351\\_Exhibit%201%20-%20COTF%20Report.pdf](http://cragenda.broward.org/docs/2016/CCCM/20161206_525/23351_Exhibit%201%20-%20COTF%20Report.pdf) p. 31 (last visited March 1, 2018).

<sup>17</sup> "Sovereignty submerged lands" means 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 that have not been conveyed or alienated. Sovereignty submerged lands includes all submerged lands title to which is held by the Board of Trustees of the Internal Improvement Trust Fund. Rule 18-21.003(61), F.A.C.

<sup>18</sup> Section 373.019(22), F.S., defines "water" or "waters in the state" as any and all water on or beneath the surface of the ground or in the atmosphere, including natural or artificial watercourses, lakes, ponds, or diffused surface water and water percolating, standing, or flowing beneath the surface of the ground, as well as all coastal waters within the jurisdiction of the state.

<sup>19</sup> Florida's seaward boundary extends three nautical miles in the Atlantic. Art. II, s. 1. Fla. Const.

2. Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

By designating the coral reef ecosystem a conservation area, the bill may enhance the ability for the conservation area to receive grant funding.