400 South Federal Hwy
Hallandale Beach, FL 33009

Hallandale Beach
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City of Hallandale Beach City Commission Agenda Cover Memo

Meeting Date:	June 5, 2019		**Item Type:** *(Enter X in box)*	**Resolution**	**Ordinance**	**Other**		
					X			
Fiscal Impact: *(Enter X in box)*	**Yes**	**No**	**Ordinance Reading:** *(Enter X in box)*		**1st Reading**		**2nd Reading**	
					X			
	X		**Public Hearing:** *(Enter X in box)*		**Yes**	**No**	**Yes**	**No**
					X		X	
Funding Source:	3390W-534010		**Advertising Requirement:** *(Enter X in box)*		**Yes**		**No**	
							X	
Account Balance:	$303, 536.14		**Quasi-Judicial:** *(Enter X in box)*		**Yes**		**No**	
							X	
Project Number :	N/A		**RFP/RFQ/Bid Number:**		NA			
Contract/P.O. Required: *(Enter X in box)*	**Yes**	**No**	**Strategic Plan Priority Area:** *(Enter X in box)*					
		X	**Safety** ☐					
			Quality ☒					
			Vibrant Appeal ☒					
Sponsor Name:	Sabrina Javellana Vice Mayor		**Department:** Public Works		James Sylvain, P.E., Public Works Director			

Short Title:

AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF HALLANDALE BEACH, FLORIDA, AMENDING CHAPTER 13 "HEALTH AND SANITATION" OF THE CITY OF HALLANDALE BEACH CODE OF ORDINANCES; SPECIFICALLY CREATING SECTIONS 13-5 TO 13-8 ENTITLED "OUR LOCAL CORAL REEF PROTECTION ACT" TO REDUCE LAND BASED SOURCES OF POLLUTION AND PROTECT FLORIDA'S CORAL REEFS; PROVIDING FOR PENALTIES;PROVIDING FOR CONFLICT; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; AND PROVIDING FOR AN EFFECTIVE DATE.

Staff Summary:

Background:

Designated by State Legislature in 2018, the Florida [Coral] Reef Tract reaches from the St. Lucie Inlet in Martin County to the Dry Tortugas National Park. This 360-mile-long tract is managed by the Florida Department of Environmental Protection's Coral Reef Conservation Program, with insight from the Southeast Florida Coral Reef Initiative. Florida coral reefs are approximately 10,000 years old and are composed of over 45 species of stony corals and 35 species of "Octo Corals" (sea fans, soft corals, etc.). Additionally, the Florida Reef Tract is home to a myriad of other marine life species including bottlenose dolphin, loggerhead sea turtles, spotted eagle rays, and countless tropical fishes.

Coral reefs provide many benefits to human well-being ("ecosystem services") including but not limited to medicine, coastal protection, aesthetics, and food. Healthy coral reefs can reduce wave energy by up to 97%, thus protecting the coast in the event of storms or hurricanes. Additionally, coral reefs contribute to tourism. The National Oceanic and Atmospheric Administration estimates that coral reefs in southeast Florida have an economic asset value of $8.5 billion.

Coral reefs are found approximately 500 feet from the shores of Hallandale Beach (Exhibit 2). A colony of Staghorn Coral (*Acropora cervicornis*) can be found less than a half-mile offshore the City. In the 1980's, approximately 97% of the Staghorn coral population died from white band disease. This species (Staghorn) was listed in 2006 as a Critically Endangered Species. Existing threats to this coral include climate change, disease, and land-based sources of pollution.

The Florida Reef Tract is experiencing a widespread and multi-year outbreak of coral disease. As of 2018, over half of the Florida Reef Tract has been affected. This disease has been killing more than 20 species of coral, seemingly targeting species which build reefs. As of 2015, the disease has been observed throughout the entire coast of Broward County. The Florida Department of Environmental Protection (FDEP) has not yet identified what is causing the disease, nor how to cure it. To date, FDEP recommends reducing land-based sources of pollution as a way to reduce stress on the affected coral reefs. Additionally, the Southeast Florida Coastal Ocean Task Force released a Final Recommendations Report (Exhibit 3) in January 2017, which also highlighted reducing land-based sources of pollution. Lastly, the Southeast Florida Regional Climate Change Compact's Regional Climate Action Plan 2.0 (RCAP 2.0) includes a recommendation to protect coral reefs via local policies to reduce pollution and runoff, marine debris, and greenhouse gas emission reductions.

With global climate change, coral reefs face a dim future. The world's ocean is getting warmer and more acidic, leading to coral bleaching events worldwide. Climate change related risks combined with coral disease means that humans have a limited amount of time to enjoy coral reefs. It is within human's power to reduce the sources of land-based pollution and improve conditions so that the Florida Reef Tract may try to heal from its disease without extraneous

stress. Given the City's commitment to the environment, staff recommends the adoption of this Ordinance, which aims to reduce further impacts on coral reef ecosystems.

Current Situation:

Staff recommends the adoption of the Coral Reef Protection Act (Exhibit 1), an addition to Chapter 13 Health and Sanitation, of the City's Code of Ordinance. The intent of the Ordinance is to reduce land-based sources of pollution which harm coral reefs.

Regulations within the Ordinance can be separated into (1) Marine Debris and (2) Stormwater and Wastewater.

Marine Debris

The world is in the midst of a global plastic pollution crisis. Every minute the equivalent of one garbage truck full of plastic is dumped into the ocean. Plastic never biodegrades, rather it breaks into smaller pieces (microplastics) as it is exposed to sunlight, making it nearly impossible to clean up. Author Sasha Adkins likens marine plastics clean up to gathering confetti from a beach which is miles long and miles deep, where some confetti is at the surface, some the bottom, and some swirling in the middle, all while someone keeps throwing confetti at an alarming rate. Plastic is a visible and tangible part of human-made global environmental change.

This Ordinance:

- Prohibits the use and distribution of expanded polystyrene food service articles (i.e. take out containers, cups, coolers) and single use carry out plastic bags on City Public beaches; and
- Prohibits the distribution of expanded polystyrene food service articles and single-use carry out plastic bags at beachside establishments within City-limits.

Funding will be needed to procure signage for Public beach access areas to notify visitors of the following efforts to reduce marine debris: Plastic Straw Ban, Polystyrene food service articles, and single use carry out plastic bags. These signs will cost approximately $1,120. This signage will be both informative and visually pleasing, as to ensure our efforts for a cleaner environment are not perceived as a harsh limitation of beach enjoyment.

Stormwater and Wastewater

Effluent (liquid waste) from ocean outfalls has a negative impact on marine environments, including coral reefs. A 2017 brief (Exhibit 4) compiled by UN Environment, Global Coral Reef Partnership, and Global Wastewater Initiative found that chronic wastewater/stormwater stress prevents reef communities from recovering from a bleaching event. The same study (Exhibit 4) asserts that more than "80% of marine pollution originates from land-based wastewater and sediments and nutrients delivered via waterways." Wastewater and stormwater pollution has a multiplier effect, reducing coral reef's resilience to climate change and ocean acidification due to

nutrient loading. Controlling the non-point pollution sources before they contaminate stormwater is a proactive action towards promoting coral reef health.

Florida Statute 403.086(9)(c)3.(d) states the discharge of domestic wastewater through ocean outfalls is prohibited after December 31, 2025. As such, Hallandale Beach needs to reduce the volume of wastewater sent to Hollywood for treatment and eventual outfall. The City has encouraged water conservation for approximately a decade through educational programs, giveaways of conservation devices to residents, water reuse projects, and interlocal agreements with Broward County. Additionally, the Department of Public Works has been involved in an Inflow and Infiltration project to reduce the amount of groundwater which seeps into our wastewater infrastructure, as this not only increases the volume of wastewater being sent to Hollywood for processing but also the overall cost to the City.

This Ordinance:

- Creates an "Ocean Friendly Landscaping" program which incentivizes rain gardens and green infrastructure in order to reduce the contamination of storm water runoff;
- Prohibits the discharge of boat holding tanks into waters within the City limits; and
- Prohibits the use of fertilizer during wet season and during expected periods of heavy rainfall or extreme weather.

A budget (estimating $5,300) for a pilot year of the Ocean Friendly Landscaping incentive program will be requested. This would allow for 5,000 square feet ($1 per square foot rebate) of residential property in the City to be converted from sod to water-efficient, low-nutrient landscaping. The additional $300 will be used for yard signage and promotional material for the program.

This Ordinance, if adopted, will be effective October 1, 2019.

Public Education and Outreach

The Green Initiatives Coordinator will lead a public information and outreach campaign leading up to the October 1, 2019 effective date of the Ordinance. The goals of this campaign include:

- Promoting resident and visitor understanding of our sensitive marine ecology and habitat;
- Encouraging businesses to make coral reef safe sunscreens available for sale in addition to conventional sunscreens;
- Informing marina visitors and boaters of restrictions of holding tank discharge;
- Holding a workshop on rain gardens and Ocean Friendly landscaping which will include information on proper fertilizer application;
- Launching the Ocean Friendly Landscaping incentive program with pre-registration of 5,000 square feet of landscaping to be converted;
- Partnering with beachside establishments which may distribute expanded polystyrene and/or single use carry out plastic bags to provide education, alternatives, and guidance for the transition as necessary; and

- Continuing to provide education to the public regarding plastics pollution and marine debris.

The Green Initiative Coordinator will attain these goals through the utilization of print media (Hallandale Happenings, the Green Initiatives Newsletter, newspapers, and brochures/handouts), digital signage throughout City facilities, Social Media, in-person workshops, presentations, trainings, and other outreach events.

Enforcement

This Ordinance will be enforced in a similar manner to other existing beach and fertilizer application restrictions.

Fiscal Impact:

As requested, the total cost of implementation and outreach for the Coral Reef Protection Act is $6,420. This includes landscaping ($5000), Yard Signage ($300), and Marine Debris sign ($1,120). This amount will be requested via the Budget Process from the Green Initiatives program.

Why Action is Necessary:

As per the City Charter Section 5.01(4)(b) action by City Commission is required to establish a rule or regulation the violation of which carried a penalty.

Proposed Action:

Staff recommends approval of the attached Ordinance which will protect Coral Reefs off the shores of Hallandale Beach.

Attachment(s):

Exhibit 1 – Ordinance
Exhibit 2 – Our Florida Reefs Map
Exhibit 3 – Southeast Florida Coastal Ocean Task Force Final Recommendation Report
Exhibit 4 – Wastewater Pollution on Coral Reefs
Exhibit 5 – Coral Reef Protection Act Presentation
Exhibit 6 – Joanna Walczak Coral Disease Presentation