

MIAMI BEACH

City Commission Meeting ADDENDUM MATERIAL 1

City Hall, Commission Chambers, 3rd Floor, 1700 Convention Center Drive
May 18, 2016

Mayor Philip Levine
Commissioner John Elizabeth Alemán
Commissioner Ricky Arriola
Commissioner Kristen Rosen Gonzalez
Commissioner Michael Grieco
Commissioner Joy Malakoff
Commissioner Micky Steinberg

City Manager Jimmy L. Morales
City Attorney Raul J. Aguila
City Clerk Rafael E. Granado

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ATTENTION ALL LOBBYISTS

Chapter 2, Article VII, Division 3 of the City Code of Miami Beach entitled "Lobbyists" requires the registration of all lobbyists with the City Clerk prior to engaging in any lobbying activity with the City Commission, any City Board or Committee, or any personnel as defined in the subject Code sections. Copies of the City Code sections on lobbyists laws are available in the City Clerk's office. Questions regarding the provisions of the Ordinance should be directed to the Office of the City Attorney.

ADDENDUM AGENDA

R9 - New Business and Commission Requests

- R9A Request By Attorney Dan Gelber, A Miami Beach Resident And Former State Representative, To Address The Mayor And City Commission About The City Requesting To File An Amicus Curiae Brief In The Lawsuit Filed Last Week By Genting Against Miami-Dade County And The State Attorney To Allow Gambling In The Omni Facility On Biscayne Boulevard In Downtown Miami.
(Sponsored by Mayor Philip Levine)
(There is no backup material for this item)
- R9B Discussion Regarding Pollution In The Bay From The Pump System.
(Sponsored by Commissioner Kristen Rosen Gonzalez)

1 The sponsor of the addendum agenda item deems that such item either constitutes a public emergency affecting life, health, property, or public safety and should be considered immediately; or does not constitute a public emergency, but should be considered immediately. See Miami Beach Code Sec. 2-12 (c)(3).

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Granado, Rafael

From: Rosen Gonzalez, Kristen
Sent: Monday, May 16, 2016 9:28 PM
To: Granado, Rafael
Subject: Miami Beach's king tide contains human waste | Miami Herald

Please place on agenda a discussion item about the pollution in the bay from the pump system.

<http://www.miamiherald.com/news/local/environment/article77978817.html>

I would like this on Wednesday's agenda.

Kristen Rosen Gonzalez
City of Miami Beach Commissioner
305-965-4725

ENVIRONMENT MAY 16, 2016 7:12 PM

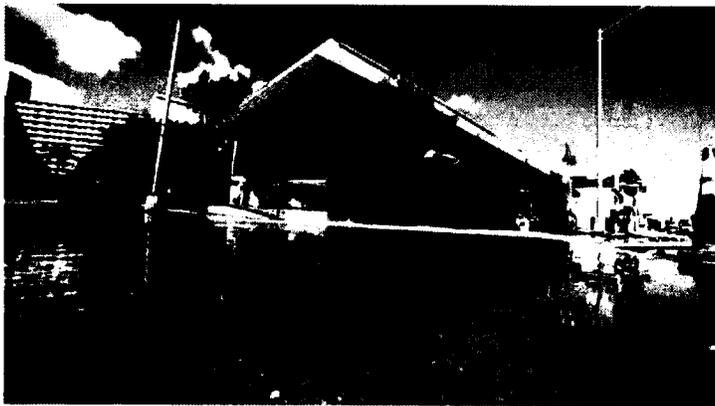
Miami Beach king tides flush human waste into bay, study finds

HIGHLIGHTS

Study looked at water pumped from island during 2014 and 2015 seasonal king tides

Water contained levels of waste well above state limits for swimming

City says it is working on public education, system upgrades



BY JENNY STALETOVICH
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Massive pumps that flush floodwater from Miami Beach into Biscayne Bay during seasonal king tides are dumping something else into the bay: human waste.

A study that looked at tidal floodwater and water discharged from the island's new pumps during the 2014 and 2015 king tides found live fecal bacteria well above state limits. In one case, levels were more than 600 times the limit. While some of the fecal matter was dog waste, scientists found higher levels of human waste that likely enter floodwaters from leaky old sewer lines or septic tanks.

Detecting human waste in urban floodwater is hardly unusual, but scientists say finding so much in a city facing dramatic projections for increased flooding as sea rise is cause for concern.

“

WE ARE PRACTICALLY GOING TO HAVE FLOODING ALL THE TIME.

Henry Briceno, Florida International University's Southeast Environmental Research Center hydrologist

“We are practically going to have flooding all the time, so those pumps are going to be operating almost all the time,” said Henry Briceno, a hydrologist with Florida International University's Southeast Environmental Research Center.

But city officials say the “snapshot” sampling isn't surprising during king tides. But they also say the study does not acknowledge the “holistic” approach the city is taking by educating residents and businesses about pollution causes or note that Miami Beach is also replacing and upgrading sewage pipes and other parts of the system.

“Stormwater pipes are known conveyances of pollution. That is their job,” said Elizabeth Wheaton, the city's environment and sustainability director. “Their job is to drain the city. So when you sample at the outfall, of course you're going to find elevated levels of bacteria.”

BEYOND THE HIGH TIDES, SOUTH FLORIDA WATER IS CHANGING

The island currently floods about six times a year during seasonal high tides that typically occur in the fall. But that flooding is expected to become more chronic. In April, the Union for Concerned Scientists revised its estimate

for flooding on the beach with new sea rise projections from the U.S. Army Corps of Engineers to about 380 times a year by 2045.

And the problem is not just one for Miami Beach. Up and down the coast, as sea rise, more urban water is expected to be flushed into coastal waters, putting at risk one of the state's biggest tourist draws.

PEOPLE DON'T REALIZE THAT WHAT'S ON THE STREET ALMOST CERTAINLY ENDS UP IN THE WATER SOONER OR LATER.

Miami Waterkeeper and marine biologist Rachel Silverstein

“People don’t realize that what’s on the street almost certainly ends up in the water sooner or later,” Miami Waterkeeper and marine biologist Rachel Silverstein said in an email. “During Hurricane Sandy, for example, over 10 billion gallons of sewage spilled. Here in Miami Dade, we still have frequent sewage spills during heavy rains that aren’t even close to hurricane-level storms.”

Miami Beach is in the midst of a \$500 million overhaul to its stormwater system that will eventually include about 70 pumps. So far, four have been installed, which the city unveiled in 2014 to rave reviews.

At the time, Briceno and a team of scientists from the National Oceanic and Atmospheric Administration and the University of Miami began sampling water to determine if the pumped untreated urban water had any impact on the bay. That first year, they found elevated levels of phosphorus, nitrogen and other pollutants that can trigger algae blooms toxic to marine life. To confirm the findings, they returned last year.

380

The number of Miami Beach floods expected to occur annually by 2045

The recent report took a closer look at the water’s contents, breaking down findings into fecal matter measured by water regulators and identifying both human and dog waste.

At four sites tested in 2015, which included outfall pipes, portable pump discharges and street water, every site had fecal levels above state limits. Along Indian Creek Drive, levels were 622 times as high. In 2014, a storm drain outfall at 14th Street measured 630 times allowed limits.

MIAMI BEACH'S BATTLE TO STEM RISING TIDES

For now, tidal flushing has kept the dirty water from building up in the bay. Samples taken further from shore, the team found, was largely diluted, creating a kind of halo of pollution.

“Tidal flushing every day actually cleans up the water,” Briceno said. “That helps a lot so we don’t have a major problem. But those waters that are flushed out go to the coral reefs.”

Wheaton said the city has expanded its own monitoring to get a better picture of how much dirty water is leaving the city and how tidal flushing affects it. The city is also trying to better educate the public about waste, including not dropping dog waste bags into storm drains. In neighborhoods packed with restaurants, grease has also become a growing problem with blocked drains, so the city recently hired an additional inspector, she said.

“We all have a responsibility for the health of the bay. The government is just one entity,” she said. “We need to encourage our businesses and residents to to be part of the solution.”

But over time , Briceno worries so much polluted water will start to take a toll on the bay as the city continues to grow. He also worries about people unwittingly wading through dirty flood water and said the city needs to do a better job of informing the public about health risks.

“I recognize that they are doing a heck of a job compared to other cities, but we need to address this problem,” he said. “It could be a problem with public health and I know it causes problems to the bay’s ecosystem. And those waters are protected.”

Briceno believes the city should consider injecting the wastewater beneath the Biscayne Aquifer into the boulder zone, a fix he estimates would cost about \$7 million. But Wheaton, who said the cost would be closer to \$10 million per well, said the cost is too high.

“Do elevated levels of bacteria concern us? Yes,” she said. “But we also need to look at everything we’re doing and not just a moment in time.”



Video: Miami Beach waging a battle against sea level rise

Miami Beach has put into action an aggressive and expensive plan to combat the effects of sea level rise. As some streets keep flooding from recent king tide events, the city continues rolling out its plan of attack and will spend between \$400-\$500 million

Emily Michot - emichot@miamiherald.com

Follow Jenny Staletovich on Twitter @jenstaletovich

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