



Saving Biscayne Bay Interview with Miami-Dade’s New Chief Bay Officer, Irela Bagué

By Tim Beatley

Irela Bagué knows the ecology of South Florida well. The daughter of Cuban immigrants she remembers especially a 7th-grade field trip to the Everglades, an experience that set in motion her interest in environmental land use and a career path that has taken her to the South Florida Water Management District, the Audubon Society,

and even a run as a state government representative. Her new and challenging job is the Chief Bay Officer (CBO) for Miami-Dade County. The “bay” here refers to the Biscayne Bay, Miami’s iconic water body, an estuarine ecosystem of immense biodiversity, and a backdrop of visual beauty and a recreational playground for a

vibrant growing metro area of more than 6 million residents. It is an expansive body of water, stretching from Broward County to the Florida Keys, encompassing 428 square miles.

The bay has been struggling in recent years, however. An [18-month study by the Biscayne Bay Task Force](#), a body chaired by

Bagué that led to her new job, documented downward trends for the environmental health of the bay. Especially difficult is the challenge of water quality and controlling the extensive water pollutants entering the bay. This was highlighted in dramatic fashion in August of 2020 when a major fish kill occurred in the bay. The fish kill may have been a blessing in disguise, as it has helped to raise awareness and led to many entities now ready to help in tackling these problems.

Excessive nutrients enter the bay in several different ways. Bagué

tells me there are some 100,000 septic systems in the county, with an estimated 18,000 failing. This is a waste disposal technology especially ill-suited to South Florida’s highly permeable karst geology. And sea level rise will only exacerbate these problems as water tables rise and causing further septic tanks to fail.

A big need she says is to invest in upgrading the region’s failing infrastructure, its stormwater and wastewater collection systems, which are literally “bursting at the seams.” A regional canal system intended to reduce

flooding serves as a conduit for sending pollutants to the bay as fertilizer and other contaminants from lawns and farms are collected and flow into the Bay.

One key result of this excessive flow of nutrients has been the sharp decline in sea grasses, which in the southern portions of the bay have declined by more than 90 percent. Seagrass meadows are an important habitat for many of the aquatic organisms found in the bay, from manatees to loggerhead sea turtles, and damselfishes to dolphins.



Irela Bagué, Miami-Dade County Chief Bay Officer

Bagué’s Task Force Report has called for setting and implementing reduction goals and interim targets, and for local ordinances that would mandate best management practices leading (hopefully) to “deep reductions in pollutants.” New pilot programs are also called for as well as a new county-wide ordinance to control fertilizer runoff. Marine sources of pollutants are also addressed in the report, with a call for increased inspections of marinas and new marina-based pollutant containment structures.

In South Florida, water management is about as complex as it can get. Bagué’s key challenge is to coordinate with local governments (there are 34 cities in Dade County), as well as multiple state and federal agencies with some stake in the bay. They each have an agenda but also can help solve the problems. “They all have to be at the table,” she says, “agreeing not just to move these restoration projects forward ... but also to

help us pay for them.”

Bagué remains optimistic, and points to other cities (such as Tampa) that have been able to change direction and restore their nearshore habitats and water quality. It can be done, she believes. What is really needed, in the words of the Task Force, is “a unified and collaborative approach to watershed restoration.”

I asked Bagué about the prospect of nature-based approaches, some of which, are recommended in the Task Force Report, such as living shorelines and mangrove forests. She is not sure living shorelines may even be allowed under the current codes, something she is working on now. Much of the land along the bay’s shoreline is privately owned and expensive real estate. “Not everyone wants to grow mangroves and lose their view. So, there is a balance we have to make,” she tells me.

Views of the bay carry an economic premium, to be sure, and raise another vexing issue in Miami -- social equity. Luxury highrise housing along the shores of the bay has become a symbol of the city’s extreme wealth, and in recent years the region has witnessed a growing gulf in inequality between the rich and poor. One recent report estimates the wealth gap in Miami is second-only to New York City among US cities. Miami is home to some 30 billionaires but also to pockets of severe poverty.

The new [Waldorf Astoria tower in downtown Miami](#) may be

emblematic of the immense wealth with hotel rooms and residences that start at \$1 million. A recent report by Richard Florida and Steven Pedigo, [Toward a More Inclusive Region](#), makes the point that many of the workers on which the region depends to sustain its lucrative tourism and development markets earn dismally low wage levels, and have [limited ability to pay for housing and the others basics of life](#).

For Bagué it is a difficult dilemma: “We want people to come and we want to continue to grow but how do we do it in a way that is fair for everyone.” Affordable housing and climate gentrification (the ongoing displacement of lower income residents in parts of the city that include higher elevation and this more attractive ground), are two interconnected and difficult issues moving forward.

It is ironic that it is Biscayne Bay, and views of the bay, that ultimately generates and sustains so much of the economic value driving the city. Surely the bay itself, and the diverse and unique marine life that depend on this ecosystem, deserve to reap some of the wealth it creates, in the form of conservation, repair and restoration. Equally true, the economic benefits that flow directly from Miami-Dade’s Bay conservation efforts should help to ameliorate the poverty and the income and wealth disparity that exist. This is a tall order for an urban estuary, perhaps, and requires new creative thinking about the mechanisms of

municipal revenue raising we need.

Changing the political balance of power and giving a voice to less affluent and communities of color, something that organizations like the [Cleo Institute](#) and the [Miami Climate Alliance](#) (two organizations Bagué recommends for their work) are attempting to do. Resting some of that wealth away from the city’s billionaire-class and using it to help protect and restore the bay would seem sensible and equitable. Bagué notes that the mayor has now created a new Chief Equity and Inclusion Officer (a job parallel to her own), whose job it is to begin to tackle this.

Resources:

Biscayne Bay Task Force (June 2020). A Unified Approach to Recovery for a Healthy & Resilient Biscayne Bay: Biscayne Bay Task Force Report and Recommendations. https://environment.fiu.edu/research/biscayne-bay-health/_assets/bague-et-al---biscayne-bay-task-force-report-and-recommendations.pdf.

Cleo Institute. <https://cleoinstitute.org>.

Richard Florida and Steven Pedigo (2019). Toward A More Inclusive Region: Inequality and Poverty in Greater Miami. Miami Urban Future Initiative. <https://digitalcommons.fiu.edu/mufi-reports/7>.

Miami Climate Alliance. <https://miamiclimatalliance.org>.

Andres Viglucci (April 24, 2019). Miami-Dade’s tale of two cities: 30 billionaires and the economic inequality of Colombia. Miami Herald. <https://www.miamiherald.com/news/local/community/miami-dade/article229441144.html>.



Biscayne Bay
Photo Credit Miami-Dade County