

King tides are a glimpse into future with rising seas. For many, flooding is the new normal

October 28 2019, by Andrew Boryga



Credit: CC0 Public Domain

Periodically throughout the year in South Florida, water from the sea invades our coast. It leaks out of bays, climbs over sea walls and docks, and floods out of sewer drains built to contain it.

For hours, it sits like an unwelcome guest—swallowing up whole streets, parking lots, marinas and driveways. It creeps under the doors of unsuspecting homes and businesses and seeps in through the cracks of futile sandbags.

Then, like a thief in the night, it slips away.

The phenomena, known as [king tide](#), occurs a handful of five- to seven-day periods each year. The worst of it happens between the end of the summer and Thanksgiving, when a stronger gravitational pull between the sun and moon creates higher than usual tides. Another round of king tides began Friday and will extend into Wednesday.

For the uninitiated, the water will seem random.

For scientists, researchers and climate change activists, it's a crystal ball of sorts: a brief, physical realization of South Florida's perilous future if nothing is done to combat rising seas and global temperatures.

But for South Floridians simply living their lives, the water—which many acknowledge has increased in recent years—is more like a temporary nuisance they know will eventually go away.

That was the sentiment earlier this month driving along on A1A in Hollywood. Near Franklin Street, king tide flooding created a pool of water that crept up to the wheels of cars. Some drivers, particularly those in sedans, made a U-turn rather than confront it.

Peter Ide, the owner of a charter fishing operation, leaned against a wooden post and watched, unfazed. "King tide," he said, and shrugged. "Some years are less, some years are more."

Ide has lived all his life in South Florida and said he remembers the flooding was particularly bad in 1969—years before people were talking about climate change.

"Everybody says it's a new phenomenon," he said. "I've seen this all my life."

Williams Sweet, an oceanographer with the National Oceanic and Atmospheric Administration, said king tides haven't changed. In fact, the rising and falling of tides is a process that has occurred for centuries. "What's changed is the sea level," Sweet said.

The sea level in South Florida has risen 5 inches in

the last 25 years, according to Sweet. But incremental increases will lead to more flooding in the coming years that is deeper, wider and slower to recede, he said.

In short, what we're encountering these days in South Florida won't be a once-in-a-blue-moon thing. "That's going to become the new normal," Sweet said.

Ide, who conceded that the flooding earlier this month seemed bad relative to other years, remained unconvinced that things are getting worse. He views the amount of flooding year-to-year more like a roll of a dice.

To prove his point, Ide pulled up pictures of the same street in 2016. The water was so deep that he was able to paddle a small boat down the street. The water before him, consuming his gravel parking lot, was still too shallow to do that.

"People make a big deal out of it," Ide said. "But it's cyclical. It comes and it goes."

Brian McNoldy, a research associate at the University of Miami school of Marine and Atmospheric Science, said it's true, the height of king tides do vary year to year.

But there is a constant upward trend when you map out tide measurements back to 1994, the earliest recorded year by the National Oceanic and Atmospheric Administration.

When 2019 is over with, McNoldy suspects it will be one of the highest years. According to him, records were broken for the highest recorded tides in the months of March, July, August and September this year—something that doesn't happen often.

Still, McNoldy hasn't noticed everyday citizens display much alarm. "Other places in the country or the world look at us and we're like the big story for them," he said, referring to the numerous magazine articles about how South Florida will be underwater soon.

Meanwhile, McNoldy said, South Floridians display a mix of resilience and indifference.

"We've just gotten used to it," he said.

On A1A and the smaller side streets extending outward like a stream from Palm Beach to Miami Beach, drivers did their best to avoid water that tended to gather on the sides of roads, creating small patches of dry land in the center for cars heading in both directions to awkwardly share.

Many sped through flooded lanes earlier this month, splashing salt water on their cars. Smart drivers ended up at car washes later to rinse off their undercarriages to prevent rusting.

Pedestrians on the street often stopped to gawk at pools of water and shoot photos, like Lynne Gillis and Joe Donato out on a morning walk along East Las Olas Boulevard in Fort Lauderdale.

"It just seems like every year it gets a few inches higher and higher," Gillis said.

She noted how quickly the water had appeared, swallowing up a whole lane of traffic, seemingly out of thin air. Then, as if to downplay her observation, she said, "I mean, in another two hours it will be gone."

Gillis lives in a mid-rise condo where she said she is safe from the water. What worries her, though, were unlucky people whose homes are flooded year after year—especially those new to neighborhoods who may not expect it.

Gillis pointed out an open house sign submerged in water across the street near San Marco Drive. "If it goes into your home, you're talking about mold and other things."

Kathleen Dood, a real estate agent who has represented properties along the South Florida coast for over 20 years, said most buyers are aware of flooding near the coast. Often, they ask her about it and she insists she tells them the truth. But she also said that increased flooding hasn't slowed her sales.

As proof, she referenced a sale she'd recently made: a \$5 million home in a known flooding hot spot on Royal Plaza Drive, a side street off East

Las Olas Boulevard.

Dood said most of her buyers, who are generally older and split their time in other cities, are willing to put up with the challenges of living near the water these days.

"They like the location," she said. "They like being able to walk to the beach. They like being able to walk downtown."

Ed Zitton is one of the many residents along the coast who seemed to agree. He sat on the edge of a sea wall near the Delray Sands Resort, taking a break from his daily, scenic bike ride up A1A.

He watched as waves of water spilled over the sea wall. He said that all week one of two entrances to Hillsboro Beach, where he lives, had been closed due to flooding.

He didn't seem to mind. "It's just that time of year," he said.

While some South Floridians seemed to lounge through king tide flooding, others have business to attend to.

Across the region, postal workers wore galoshes while delivering mail. Delivery men during lunch hour wore ponchos and peddled bikes through water while balancing food. Sean Satz cleared the grass from a sprawling fenced-off mansion near Hillsboro.

Satz, a landscaper, said he has worked up and down the coast during king tide season. Personally, the water didn't scare him much. It did, however, make his job harder.

He pointed to big trash bags full of garbage and debris the water had washed up and that he'd spent the morning picking out of the grass. He listed off some of the items he'd found: Styrofoam cups, flip flops, an empty bottle of tequila. "Everything besides money," Satz said.

At Haulover Marine Center in Miami later that afternoon, Bret Lyons, a tug boat operator, helped a soaked man who had unsuccessfully waded into

the flooded marina to try and attach his boat to the back of his pickup.

Lyons said he tows at the marina every day, but during king tide season he becomes extra busy. "Some people like to go out during this weather, even though it's not the best idea," he said.

McNoldy said he finds such stubborn behavior curious, but ultimately understands. After all, he is less fatalistic about the future of South Florida than some of his peers.

"All of Southeast Florida is not going to say, 'Well, that's it, we're done,'" he said. He believes that somehow, some way, we will figure out how to adapt to rising seas.

Franklin Vivar and his construction crew were busy working on just that on Las Olas Boulevard near Southeast 25th Avenue one afternoon.

They had just covered the old entrance of a salon and real estate firm with a new brick wall and were finishing up a new entrance to both businesses, raised two feet off the sidewalk. Vivar said the entrance was meant to ward off flooding from king tides.

He pointed down the street where restaurants, real estate and law firms had covered their doors with sandbags or metal sheets and taped signs telling patrons to enter through the back doors.

Around the corner from where Vivar and his men worked, Sunset Drive was completely flooded. Near the edge of the road, where the street meets Sunset Lake, a city worker was ankle deep in water, trying to fix a water pump that clearly wasn't working very well.

The water had grown too high for the pump to be of any use, the worker said. The tide that day was made worse by a couple of storms out at sea. "It's king tide, high tide, and a storm," he said. "It's bad."

Installing water pumps to filter water out of streets, raising docks and sea walls and elevating roads are some of the ways South Florida has attempted to attack rising seas in recent years.

However, experts believe real solutions require more holistic thinking.

Sweet, for example, compared what South Florida is doing to trying to fix an old car one piece at a time instead of investing in a new one. "Don't patchwork," he said. "Take a step back and determine how to strategically deal with the problem."

McNoldy said that ultimately the real solutions are the ones that are more costly and inconvenient. "Anything that takes a lot of money and a lot of time are things that you want to start doing now before it's too late."

Whether such steps will be taken to prepare for sea level rise in South Florida remains to be seen.

In the meantime, however, many residents here who enjoy the daily sunshine, the beach and the palm trees will continue to view king tide season with a mix of temporary awe and last-minute caution.

Or, just like Ronald Rodriguez.

Rodriguez, part of Vivar's construction crew on Las Olas Boulevard, took a break that afternoon to eat lunch.

Because he'd been working in the [water](#) earlier, he'd long ago taken off his boots and socks.

He sat on the ground with his lunch pail and leaned back on the new wall he'd helped build. As he ate, he watched the waves in the street crash against the curb each time a car drove by.

"It's like being at the beach," he said, smiling.

Not more than 15 minutes later, though, the waves breached the sidewalk and began inching near his bare feet, ending the fantasy. Rodriguez abruptly grabbed his lunch and ran to seek higher ground, in his work truck.

©2019 Sun Sentinel (Fort Lauderdale, Fla.)

Distributed by Tribune Content Agency, LLC.

APA citation: King tides are a glimpse into future with rising seas. For many, flooding is the new normal

(2019, October 28) retrieved 9 December 2022 from <https://phys.org/news/2019-10-king-tides-glimpse-future-seas.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.