South Florida Faces A Costly Sewage Problem

By TOM HUDSON & ALEX GONZALEZ  •  JAN 28, 2018

From Delray Beach to Virginia Key, South Florida is spending millions of dollars to fix old sewer systems.

There's nothing exciting or innovative about sewers, but with hundreds of people moving to South Florida every day and thousands more visiting, not taking care of our sewers threatens our environment and our pocketbook.

This week, the Fort Lauderdale Commission approved borrowing $200 million to begin fixing sewers. An estimated $1.4 billion in repairs is needed over the next 20 years.
Delray Beach had to spend $2 million after Hurricane Irma on emergency generators for its sewer system. That didn't stop the city from telling residents to avoid flushing toilets or take showers for a week after the storm or risk dirty water overflowing into streets.

Here's what some of our listeners thought about the issue:

"We are known as the Venice of America, yet we are not protecting what is so important to our economy."

- Joel Eriksson from Fort Lauderdale

"I have both smelled and seen the problem! After Irma, the greatest cause of flooding was directly connected to lack of proper maintenance by MDWS [Miami-Dade Water and Sewer Department], aside from outdated materials, in the Riverside area of East Little Havana by the Miami River."

- Anneliese Morales from Miami **

"I have not been directly impacted by the sewage spills, but as an engineer, the state of our nation's infrastructure is very worrying, and I see Fort Lauderdale's decision to take out a bond to do work on their sewer system as a positive first step."

- Matthew Sosa from Pembroke Pines

"This is not new. Almost 60 years ago, it was a concern. Look at Miami, Atlanta, New York City - just to name a few. Both Fort Lauderdale and Miami have long since overbuilt their systems. Moot point."

- Gord Kirk from Davie

"And Amazon wants to come here?"

- Jay from Coral Springs
WLRN's Tom Hudson spoke with Lulu Ramadan, a reporter for the Palm Beach Post, and Brittany Wallman, who covers the city of Fort Lauderdale for the Sun Sentinel, to figure out how South Florida got here.

WLRN: Brittany, describe the size of the sewer problem in Fort Lauderdale.

WALLMAN: Well, as you mentioned, a consultant reviewed the problem for more than a year and said that there's $1.4 billion in water and sewer improvements that are needed. But I think the very fact that when we had heavy rains last June that sewage literally flowed out of the manhole covers in the street and people were walking their dogs in raw sewage, that really tells you how big the problem is.

What other cities are having these kinds of problems with this type of critical infrastructure for sewers and water delivery?

RAMADAN: Well, Delray Beach had some issues after Hurricane Irma when the power went out and it wasn't able to power its sewage pumps. They're called lift stations and they're what keeps the sewage from overflowing into the streets and out of your pipes in your homes.

And the city has admitted that it was unprepared for the hurricane. But there are other comparable cities. For example Boca Raton, after Hurricane Wilma, was a lot better prepared for that scenario, and they didn't have as many sewage issues.

So in Delray Beach's case, it's a combination of the generating power to replace lost electricity after the storm to even just the capacity challenges and the age of the system in Fort Lauderdale.

What about the Lauderdale system? Is it just the lack of maintenance? Or is it the development that's happened that has added thousands of toilets and shower drains to the system over the course of many years?

WALLMAN: Well, it's a combination of those things. But I would also say that it's a little worse in South Florida because of the high water table, sea-level rise and the pipes. Sand gets in the pipes; it's extremely corrosive. So the pipes and the parts might not last as long as they otherwise would.
So, one of the problems in Fort Lauderdale that I think is just so astounding is that they've determined that at least half of what's flowing through those sewer pipes came in leaked into the pipes from the water table. And, as I was saying, heavy rain. So if you don't even have a self-contained system there. It's just an enormous cost because you're paying not just to transport the sewage from all this development and the existing residences but also rainwater and everything else.

It's very hard once you're in a reactive position - like Fort Lauderdale is - to get ahead of it because doing the projects is very disruptive. You have your streets torn up. If you take a pipe out of service to replace it, you might have to use trucks to transport the sewage. And so you can't tackle a billion dollars in work at once. It's going to take a number of years, and so the question remains 'How bad will it get?' as they spend all these years doing these repairs.

How bad will it get? And where do the resources come from to address these problems with the cities that have everything from the pipe problem to even generating capacity for the sewage lift systems, like Delray Beach experienced after Hurricane Wilma?

RAMADAN: Well, with Delray Beach, it was definitely more of an equipment failure than an infrastructure failure. Although, of course, cities across the board – Palm Beach County, Broward County and Miami-Dade County – have infrastructure issues that they're addressing periodically.

But in Delray Beach post-Irma, they were faced with a pretty significant issue in that they didn't have enough generators to power those lift stations at all so they had to rotate individual generators just to make sure that sewage was being pumped. And so they had to tell their residents to avoid flushing the toilet, running the dishwasher, running the shower, or otherwise draining water. If you don't want to risk wastewater flowing into your homes or into your streets.

So, during the hurricane, Delray Beach had to purchase emergency generators. That cost more than $2 million, and it's probably going to cost the city even more to get the equipment needed to use those generators.

**Editor's note: Jennifer Messemer-Skold, a spokeswoman for the Miami-Dade Water and Sewer Department, reached out to WLRN. She
clarified that MDWS doesn't oversee storm water drains. That's a function of Miami-Dade County's Department of Transportation and Public Works.