

BUSINESS INSIDER

Houston is tackling the threat of destructive hurricanes and flooding — even though Trump ignores it



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20H



Area residents use a kayak to rescue motorists stranded on Interstate highway 45 which is submerged from the effects of Hurricane Harvey seen during widespread flooding in Houston, Texas, U.S. August 27, 2017.

Reuters

- **Cities across the United States are investing in infrastructure that will help make them more resistant to storms.**
- **A neighborhood in Greater Houston is building stormwater detention ponds, one of which helped prevent an estimated 200 homes from flooding during Harvey.**
- **These efforts are happening despite the Trump administration's hesitation to discuss the country's contribution to global warming.**

Nearly three months ago, [Hurricane Harvey](#) brought **43 inches of rain** to Houston, Texas, pummeling the city.

When the sun came back out, much of Houston and the surrounding area was in ruins. The storm destroyed between **30,000 to 40,000 homes**, waterlogged around around **a half-million cars**, and damaged power lines for **thousands of people**. The Federal Emergency Management Agency (FEMA) is now spearheading **\$50 billion in relief efforts** after Harvey and other devastating hurricanes that hit Florida, Puerto Rico, and the United States Virgin Islands this summer.

Scientists say that **climate change** will only **continue to** make storms more destructive. At the same time, the Trump administration has seemed reluctant to discuss **America's contribution to global warming**. Nevertheless, flood-prone cities like Houston are increasingly searching for ways to make themselves less vulnerable for the next inevitable hurricane.

Clear Lake City (located around 20 miles southeast of downtown Houston) is transforming a shuttered 1960s-era golf course into a site that will help reduce flooding in the area. The Clear Lake City Water Authority is building **five detention ponds** that will be able to hold half a billion gallons of stormwater — or around the same amount as 750 Olympic-sized swimming pools. The **Exploration Green Conservancy (EGC)**, SWA Architects, and urban planners from **LAN** are also involved.



One of five massive stormwater detention ponds under construction in Clear Lake City, Greater Houston, Texas.

Stan Cook

The \$28 million project broke ground in early 2016 and will be complete by 2021. Only one of the ponds was 80% finished when Harvey hit, but it still prevented around 100 million gallons of water from flowing into the Houston area's drainage system, LAN's project manager, Kelly Shipley, told Business Insider. She estimates that the pond saved 200 nearby homes from flooding during the storm.

When all five ponds are complete, Shipley says they will be able to protect approximately 2,000 houses in the event of another hurricane like Harvey. When water flows into the ponds, they hold back just the right amount as

to not overwhelm Houston's pipes. The water later flows into the Armand Bayou, then Clear Lake, Galveston Bay, and eventually into the Gulf of Mexico.

The site will also include a public park with 12 miles of trails as well as a protected wildlife area for native birds, butterflies, flora, and 5,000 re-planted trees.

Before the Clear Lake City Water Authority bought the 200-acre golf course, its former owners wanted to turn it into condominiums, which would've likely made the area's flooding even worse. Over the past two decades, over 38,000 acres of wetlands have disappeared in greater Houston, according to [a 2015 Houston Chronicle report](#). Wetlands are areas that [act like sponges](#) for excess water. Without them, a city like Houston becomes [more prone to floods](#).

"There was a big grassroots movement that came out and said, 'We don't want more development here. We would like the green space. Just keep it green,'" EGC Vice Chairman Doug Peterson told BI.



A rendering of Houston's new downtown plan.

Downtown District

In November, the city of Houston also unveiled its [new downtown masterplan](#), which includes a five-mile ring of parkland that will help absorb floodwater. Though the plan was already underway before Harvey, the city added even more more park space and storm water detention areas to the proposal after the storm, [according to The Houston Chronicle](#).

Local leaders in cities across the US are investing in similar efforts.

After Hurricane Sandy in 2012, New York City ramped up its climate resilience efforts by [spending billions](#) in federal funds to guard subways, electrical facilities, [buildings](#), and wastewater treatment plants from stormwater. Another flood-prone city, [Miami Beach, Florida](#), [hopes to spend \\$400 million](#) to elevate 60% of its roads, which will receive new drainage, pavement, and sewer and water systems by 2025.

"In the past, I don't think cities looked 100 years off and said, 'What can we do now to make sure we're as prepared as possible?', Miami Beach's Deputy Resiliency Officer, Amy Knowles, [told](#) Business Insider. " If we wait, we may be experiencing much more costly events than if we had just taken action."

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